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AGRICULTURAL LIBRARY NOTES

VOLUME 6

JANUARY-DECEMBER

1931

Edited by Claribel R. Barnett,
Librarian, United States Department of Agriculture

ISSUED MONTHLY
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UNITED STATES DEPARTMENT OF AGRICULTURE LIBRARY
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AGRICULTURAL LIBRARY NOTES

Vol. 6 January, 1931 No. 1

THE CONTRIBUTION OF THE LIBRARY TO COLLEGE TEACHING

"Modern college teaching is based upon the laboratory method. Instruction merely through recitations, lectures and single text-books is generally obsolete, particularly in those branches which are of more modern growth, save for very elementary and introductory courses. No college president would hark back to the cheap and simple days of "fourteen weeks in chemistry." Instead he points with deserved pride to an elaborate and well equipped series of laboratories for biology, chemistry, physics and astronomy. The laboratory method has captured teaching of collegiate grade.

The social sciences and the humanities find their laboratories in the library. It provides the means for experimentation, testing, comparison and abstracting as truly as do the work bench, the anatomist's table, the microscope and museum specimens. This fact is too little understood. "Books" have too often meant "text-books" to the unreflecting. Books as the vehicles of training in method - the chief goal of college teaching - have been but imperfectly apprehended by administrators, trustees and the elder statesmen of many faculties. But the fact remains - only in books organized and administered in libraries can the students and teachers of such subjects as philosophy, history, literature, economics and political science find the true and vital means of study. History for instance - what modern professor will try to teach, say the history of the American Revolution, on the basis of a text alone, or even by the lecture method without texts or collateral reading? One has but to pose the question to answer it. It isn't done. Just as no teacher of chemistry expects his students to have at home their private and individual laboratory collections of apparatus, reagents, gas, water, and electricity, so but few, if any, professors of French literature can hope to have students who own in their private libraries full sets of encyclopedias, literary and critical journals, dictionaries, the great standard texts of French authors, and the lesser lights of modern days. He is lucky if they own a single French-English dictionary and the texts they are studying in class. He and they must perforce depend on the college library not alone for that perspective which will give a course or an author proper setting, but even for the means of daily study and recitation, to say nothing of the preparation of papers and reports.

The use of the library for what may well be called - for want of a more fitting term - the laboratory method in teaching the humanities and the social sciences has certain necessary implications which demand attention- and money.

First, the supply of books must be adequate and modern. There must be books which are sources and other books which are most special treatises on topics taught. There must be at least a fair number of files of technical journals and the more general reviews. The collection of works not necessarily the concern of any one department of instruction must be not only large but interesting as well.

This is easy enough to say - but costly of both money and time. The tendency has been of late years to buy rather full numbers of copies of a few books definitely required to be read in connection with certain courses, instead of a greater number of books on the larger field. That is, "required reading" has been very much more a requirement that certain chapters in certain books be read and reported on than an obligation to familiarize oneself with the literature of a topic under study in a course. There are happily signs of a change in this attitude. But that change - if it becomes at all general - is going to require far larger collections of books for required and general reading.

What is an adequate supply of books for a good undergraduate college? This is one of the riddles which are continually set for librarians - but no one knows the answer. There might well be some definite ratio between books and students, where it not for several factors which interfere with establishing such a fixed rule. The fact that in many lines - philosophy, for instance, few books (other than classroom texts) become obsolete with the years is one consideration. Another difficulty in establishing a ratio is shown by the fact that no college faculty has yet protested that the college library is too large for effective teaching. The necessity for duplication on a fairly large scale to supply enough copies of important books is another disturbing element. Ten copies of each of one hundred titles makes a thousand volumes, but for the purposes of a ratio they are but one hundred. Certain minimum standards can doubtless be set, depending on the number of departments of instruction, the presence or absence of other libraries, the number of subjects, and the nature of the subjects taught. Pure mathematics, for example, may be well cared for with a thousand volumes in some colleges, with but little duplication and less cost of replacement, while English literature in the same college should have at least six thousand volumes - not including duplicates for class use. A well-selected library of fifty-thousand volumes will perhaps suffice for the needs of sound teaching in a college of not over five hundred students. This number does not include duplicates, which are of course comparable with consumable supplies in a laboratory . But emphasis must be placed on selections, on the character of the collection, and on provision both for duplicates and for replacement. Fifty thousand volumes alone do not make any standard, as any librarian knows.

In considering the suitable minimum we should not lose sight of the fact that the natural and physical sciences as well as the technological branches need libraries just as much as they need laboratories. They can not do without either.

But an adequate provision of books calls also, as a necessary corollary, for a serviceable and well-planned building. Such a building must be laid out with a view to intensive use as a laboratory by large and growing numbers of students. That means adequate study halls and reading rooms, a sufficient number of seats even at crowded hours, perhaps even an individual desk for each college student in the library itself. It means also direct access to the library's shelves on the part of all students - of course

with a proper provision for caring for rare and valuable books. There is no question whatever that direct access to reference books is not enough. No college library - as distinct from huge university libraries - need place any bar between the student and all the ordinary books in that library. No other single factor is likely to be more important in forming and molding the student. To deny it to him is to shut him off from direct contact with the best the college can offer him.

The laboratory view of the college library demands an adequate, professionally trained staff of librarians with full academic standing for its various grades of service. Librarianship has made remarkable strides in America in the past fifty years. Colleges and universities have been far slower than cities and governments to recognize this fact, to reward proven ability and talent, and to admit the non-teaching staff generally to full academic fellowship. The result has been rather painfully apparent in the character of much of the library service in our colleges. Modern methods of classification and cataloging and the full use of bibliographic tools now provided in such large measures insure in the hands of a competent staff s definite and detailed service to readers, making quickly available the contents of large masses of books formerly too often mere ornaments on the shelves. Books and a building alone will not and do not make an effective library. Without trained and enthusiastic librarians the college library will never make its full contribution to college work.

Valuable as the college library may be as an aid to teaching, it has an even higher educational function. The college library is one of the surest means to acquiring culture. Hours spent in it on an independent or directed search for knowledge have results far beyond the measure of grades or efficiency tests. Who does not recall the discovery for oneself of books which have marked stages in one's intellectual - and even moral - life? I would rather turn a boy loose in a good library of the literature of our English tongue than have him recite or write papers on the English drama, the modern novel, or the poetry of the Anglo-Saxons. If he fails to come from college with the reading habit ingrained in him, he has missed about the best thing that college can give him. And how shall he form the habit of discriminating and judicial choice of books, if he be not exposed to books in large numbers?

And lastly, one of the soundest contributions of the college library to teaching is its aid to maintaining the vitality of the teaching done by the faculty. To this end the college library needs to be far better and far larger than very many of them have been in the past. No real teacher is likely to do his best work when continually deprived of the means of prosecuting his own researches, of following his own studies. If he must journey far and frequently for this end, his routine work of teaching can not but show his lack of progress. If he have at hand daily and hourly at least a large part of the books he needs, his mental attitude toward his work is likely to be healthier, sounder and happier. The college library can not only contribute to teaching undergraduates - it can feed and nourish the teacher himself." (William Warner Bishop, in Association of American Colleges Bulletin.)

THE INTERNATIONAL YEARBOOK OF AGRICULTURAL STATISTICS

The International Institute of Agriculture, Rome, has forwarded the following statement regarding the 1929-30 edition of the International Yearbook of Agricultural Statistics:

"The International Institute of Agriculture at Rome has just recently published the 1929-30 edition of the International Yearbook of Agricultural Statistics.

This volume of about 800 pages is the result of the most extensive and detailed inquiry made in the domain of international agricultural statistics and constitutes a work of the greatest importance to all those who are interested in questions having a direct or indirect relation to production and commerce of agricultural products.

In the first part of the Yearbook are classified the figures for area and population in the years nearest to 1913 and 1929 for 220 countries: the presentation of these figures throws light upon the world situation from the geographical, political and demographical points of view during both the pre-war and the post-war periods. The second part is composed of a series of tables comprising for nearly 50 countries the available data concerning the uses for which the total area is employed, the apportionment of cultivated areas between the different crops, agricultural production, numbers of the different kinds of livestock and the products derived from them. In the tables constituting the third part of the volume, have been indicated for nearly 40 agricultural products, the area, production and yield per acre in each country during the last five years of the pre-war period and during each of the years from 1926 to 1929.

For each kind of livestock, all available figures in the different countries have been grouped for the years 1913 and 1925 to 1929. A large part of the volume is devoted to statistics of the commercial movement of 42 vegetable products and 12 products of animal origin. The figures published relate to the imports and exports during the calendar years and for the cereals also during the commercial seasons.

It may be added that the tables of production and commerce not only specify details for each country but also the totals for the different continents and hemispheres and for the whole world, allowing the formation of a general idea of the changes taking place during the periods under consideration in the area under each crop, quantities harvested and the commercial movement in each product.

The part devoted to prices contains the weekly quotations of 25 agricultural products on the principal world markets for the year 1913 and for the period January 1926 to June 1930. In the freights section will be found the quotations for the carriage of wheat, maize and rice on the most important shipping routes, and in the section reserved for fertilizers and chemical products useful in agriculture

THE INTERNATIONAL YEARBOOK OF AGRICULTURAL STATISTICS
(Cont'd)

are published statistics of production, trade and prices for 15 products. In the rates of exchange section are set out the rates on the New York exchange for the most important currencies.

For the first time there have been introduced into the volume special chapters on the importance and distribution of the agricultural population, the distribution of agricultural holdings according to their size and mode of tenure and forestry. The volume has also been enriched by a long introduction and a chapter of explanatory notes."

"An economic commentary to the International Yearbook of Agricultural Statistics for 1929-1930 has also been issued recently by the International Institute of Agriculture at Rome. This commentary forms a separate volume and is entitled 'Agricultural Conditions in 1929-1930'. It contains at the end a rather extensive bibliography of recent books (mostly published after 1925) which are giving information about general agricultural conditions in the various countries of the world. In general, only monographs are included while annual series and other periodicals have been omitted. The bibliography is arranged by countries, but does not pretend to be exhaustive. The compilation of titles has been done in the Library of the International Institute of Agriculture by Mr. J. Jonssen under the supervision of the librarian, Dr. Sigmund von Frauendorfer."

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AROUND THE AGRICULTURAL LIBRARY CIRCUIT

Arkansas

Just before the Christmas holidays, the regular staff of the University of Arkansas library gave its annual Christmas tree party for the student staff. After the gifts were distributed from the tree the students, who were divided into two groups, gave two stunts for the amusement of the regular staff. A box supper followed, the guests drawing for partners.

Colorado

A "List of Serials in the Library of the Colorado Agricultural College" has recently been issued by the College Library. The preface states that the list was made to serve (1) as a check list of the serials in the main library of the college, (2) as an aid to the completion of useful sets, (3) as an exchange list, and (4) to furnish information for the workers on the campus. The list does not include serials owned by the Experiment Station and with a few exceptions it omits government documents, state documents, college catalogs and publications by college students, state experiment station and extension publications, year books and almanacs. Other exceptions were made in the case of Colorado material or material of special interest to an agricultural college. This list was prepared by Ivo Oliver, Reference Librarian, assisted by Zelia Rank, Cataloger.

AROUND THE AGRICULTURAL LIBRARY CIRCUIT
(Cont'd)

Florida

"Pan-Americanism. A bibliography of the books in the library of the University of Florida relating to the countries of South America, Central America, Mexico, and the West Indies" is the title of a list of 15 pages compiled by Alice Cummins and published as Supplement No. 1 to Volume VI (Sept.-Oct. 1930) of the bi-monthly Library Bulletin of the University.

Kansas

Miss Elizabeth H. Davis, Reference Librarian of the Kansas State Agricultural College, is the author of an article on "Godey's Lady's Book" contained in a pamphlet entitled "Literature for Ladies, 1830-1930", recently published by the Department of Industrial Journalism and Printing of the Kansas State Agricultural College.

Massachusetts

Miss Gertrude Palmer, a graduate of the Simmons School of Library Science, 1930, has recently been appointed as an assistant in the Massachusetts Horticultural Society Library.

Mississippi

Mr. R. C. Morris, Librarian of the Mississippi Agricultural and Mechanical College writes that his library is contemplating the addition of a Government publications department whose duty it will be to classify and make available the valuable material furnished by the Superintendent of Documents. The assistants in the department will have special training in the work and thus be in position to render valuable aid to the various departments using the material. Mr. Morris would like to have suggestions from librarians of the agricultural colleges who have already established departments of this kind.

Montana

The Librarian of the Montana State College writes that she has found helpful the discussion at the Agricultural Libraries Section Meeting in 1929, concerning the policy pursued by the State college libraries in the purchase of books out of experiment station funds. In Montana the books are ordered and paid for by the station but they have never been catalogued. The librarian is trying to persuade the Director to allow her to catalogue them so that there may be a central record of them.

Miss Doris Wilson, University of Washington Library School, assumed her duties as general assistant in the Montana State College library on September 1. She succeeded Mrs. Lois Payson who resigned to work for her Master's degree at the Columbia University School of Library Service.

AROUND THE AGRICULTURAL LIBRARY CIRCUIT
(Cont'd)

New Hampshire

The Librarian of the New Hampshire Agricultural Experiment Station writes that he would like to comment unfavorably on the question of printed cards for state agricultural experiment station publications. He thinks the place of the cards is filled by Department Bulletin 1199, with supplements, and by Miscellaneous Publication 65 and that it would be much more to the point to index Department Bulletin 1199 by subject and perhaps bring it up to date with one inclusive bulletin.

New Jersey

The Librarian of Rutgers University in his annual report for the year ending June 30, 1930, calls attention to the fact that the assistants in the Periodical Division of the library have prepared a full list of the library's large holdings of periodicals and series for inclusion in the supplement to the Union List of Periodicals which is now being prepared by the H. W. Wilson Company in cooperation with the libraries of the United States and Canada." He comments on the value of the Union List as follows: "The Union List of Periodicals is most important to all libraries, particularly to libraries in which much reference and research work is done, as it informs each library where the periodical volume which it does not have but which is needed by a member of the faculty or research staff, is located." We have borrowed many volumes from other libraries and we have loaned many to other libraries, but with our own inclusion in the Union List we shall render greater service to other institutions and more fully cooperate with them."

South Dakota

Prof. Wm. H. Powers, Librarian of the South Dakota State College, has written to the Editor of Agricultural Library Notes, expressing the need for a review of technical books especially relating to agriculture. He points out that the Experiment Station Record does not answer this purpose as the books are not segregated from the periodical articles, and that Agricultural Library Notes, although useful, does not fully meet the need, since it does not attempt to evaluate books. He raised the question whether the H. W. Wilson Company could be induced to do for the field of science and technology what the Book Review Digest does in the field of general literature.

Tennessee

The University of Tennessee Library at Knoxville will move into the first unit of its new library building about the middle of March. An illustrated article describing the building is contained in the February 1 issue of the Library Journal. The article is by the Librarian, Miss Mary E. Baker.

AROUND THE AGRICULTURAL LIBRARY CIRCUIT
(Cont'd)

Utah

Beginning January 7, 1931, the Utah Experiment Station Library will render a new service to its staff members. Early in December a list of journals and magazines received by the Station library was sent out to all Station staff members with the request that those desiring to review certain publications as issued check and return the list. From the requests received it seemed evident that the Station would be justified in going to the extra expense of having these journals delivered and called for. This service will continue as long as the use made of it seems to justify the arrangement. A designated upperclassman, on a certain day, will deliver to the staff members those journals checked or desired by them. Three days later the upperclassman will call for these publications so that they may be read by the person whose name is next on the list.

Virginia

Under the heading "Bibliographies" reference has been made to the "Bibliography of Commander Matthew Fontaine Maury including a biographical sketch", prepared by Mr. Ralph Minthorne Brown, Librarian of the Virginia Polytechnic Institute. Congratulations are extended to Mr. Brown for this fine piece of work. As stated in his sketch, "full recognition by his fellow countrymen of Maury's genius and of his great services to his state, his country, and the world in general, has been slow in coming." The bibliography will be most useful in making better known the work of this scientist who it is generally conceded should rank with the great scientists of all time.

West Virginia

The first section or unit of a new library building for the West Virginia University will be completed and ready for use about March 1st. The book capacity provided by this unit will be about 325,000 volumes and the seating capacity about 500. The new structure will be provided with mechanical delivery, fifty-two cubicles for private study, five seminar rooms with adjacent studies, and other modern conveniences. According to the plans of the architects, the next unit will provide for 1,000,000 volumes. The building is modern Georgian style of architecture and is constructed of brick and Indiana limestone. The reading rooms are finished in walnut. There are five tiers of steel stacks.

Great Britain Ministry of Agriculture and Fisheries Library

Mr. S. R. Thompson, formerly Librarian of the Ministry of Agriculture and Fisheries, London, has been transferred, on account of his health, to the Ministry's Fisheries Station at Lowestoft. Miss V. C. Lowe has been appointed to succeed Mr. Thompson.

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THE LIBRARY AND LOCAL HISTORY

At the joint conference of the Ohio Library Association, the Indiana Library Association, and the Indiana Library Trustees Association, held in Dayton in October, 1930, one of the features was a state and local history round table. The following extracts from the account of the meeting in the Library Occurrent for October-December, 1930, have a message for agricultural libraries for it is believed that agricultural libraries can be of much service in collecting material on the agricultural history of their states.

Dr. Harlow Lindley of the Ohio State Archaeological and Historical Society, in his opening remarks brought out two advantages to the small library in the collection of local history; first, that it enables the library to be the outstanding library in one field, and second, the advantage to the librarian in the contacts which it brings.

A. E. Curtis, of the Smith Book Company of Cincinnati, made a strong plea for librarians to look over carefully all old books, pamphlets and papers which they could secure for items of possible historical interest. Those which did not pertain especially to the local community he suggested could be donated to the State Library, or even sold to dealers. During the war when the price of old paper went up, attics and cupboards were cleared out and some 50 per cent of such material was lost.

George J. Blazier, Librarian of Marietta College, in his paper on the "Library and Local History" urged librarians to watch for material in the break up of estates, in newspaper offices, in old letters, and everywhere, and strongly favored the forming of local associations and the keeping and making accessible of material in local libraries rather than the sending of it to some central point. He recommended the working out of some system whereby libraries could finance and develop the aquisition of such material, and cooperation with various libraries and with state and local associations.

Another speaker mentioned the value of interviewing old residents on topics of local history. Reference was made also to the articles on local history prepared by members of the staff of the Terre Haute Public Library which were printed by the Terre Haute newspaper.

All of these suggestions it is believed are applicable to agricultural libraries in collecting state and local material on agricultural history.

A cooperative project which bears on this subject is the compilation of a union list of old American agricultural periodicals contained in the various state agricultural college and experiment station libraries. Complete sets of such periodicals published previous to 1900 are contained in very few libraries. If a list of these were compiled it would probably be possible to make up at least a few complete sets. In any case, it would be of service to have a list of the periodicals available in the various libraries. If it would involve too much work to include the periodicals published before 1900 the limiting date might be made 1880 or even 1860. These old agricultural journals are valuable sources of information on agricultural history and agricultural libraries have a responsibility in making them available. The last date would bring the list up to the Civil War, an important milestone in our economic history.

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BIBLIOGRAPHIES

Bibliography of Commander Matthew Fontaine Maury, including a biographical sketch. By Ralph Minthorne Brown, Librarian, Virginia Polytechnic Institute. 61 p. Blacksburg, 1930. (Virginia Polytechnic Institute, Bulletin, vol. XXIV, no. 2)

Matthew Fontaine Maury in addition to being a physicist and meteorologist, had a special interest in agriculture and was among the first to urge upon Congress the establishment of a bureau that should regularly issue weather and crop reports. He also worked for the establishment of a school of agriculture for Virginia.

Bibliography on soy beans. Seattle Public Library, Technology Division. 36 p. March 30, 1930.

This bibliography includes material on the soy bean and its products published from 1890 to date, with the exception of (1) patent literature; (2) material on the agricultural phases of the subject such as culture, varieties, use as forage crop, etc.

The banana industry, 1927-. A selected list of references, with particular reference to the economic aspects of the industry. Comp. by Louise O. Bercaw, Library, Bureau of Agricultural Economics, U. S. Department of Agriculture. 10 p. Typed. (May be borrowed for copying)

Selected list of publications containing wool prices. Comp. in the Library, Bureau of Agricultural Economics, U. S. Department of Agriculture. 5 p. Typed. (May be borrowed for copying)

Bibliography of marketing literature. The Agricultural Economics Society, Reading, England, Dec. 1930. 32 p.

A selected list, prepared especially for the members of the Agricultural Economics Societies. Lists only publications in the English language.

References to published reports of research in home economics receiving Federal support at the agricultural experiment stations, 1928-1930. Compiled by Sybil L. Smith, Office of Experiment Station, U. S. Department of Agriculture. 8 p.

Potash bibliography to 1928 (Annotated). Review and compilation of technical literature on potash salts (including the alunites) and their foreign occurrences. By J. F. T. Berliner. 578 p. U. S. Department of Commerce, Bureau of Mines, Bulletin 327.

The material in this bibliography is arranged chronologically and alphabetically according to authors within each year. An author index and a detailed subject index are appended. An index of the numerous potash and associated minerals with their synonyms and empirical compositions is also included.

An account of Government bibliography in the United States and elsewhere. By James B. Childs, Chief, Division of Documents, Library of Congress. Rev. July, 1930. 57 p. Washington, D. C., Govt. Ptg. Off., 1930. (Published by Library of Congress)

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AMERICAN BOOKS

I'll Take My Stand. The South and the agrarian tradition. By twelve southeners - Donald Davidson, John Gould Fletcher, Henry Blue Kline, Lyle H. Lanier, Andrew Nelson Lytle, Herman Clarence Nixon, Frank Lawrence Owsley, John Crowe Ransom, Allen Tate, John Donald Wade, Robert Penn Warren, Stark Young. 359 p. New York, Harper and Brothers, 1930.

"Here twelve Southeners, born in the rural South, and for the most part still intimately connected with its life, present their views on our present-day industrialism. They attack the central issues and fundamental psychology of industrialism as a way of life built on a social and economic technique that has not justified itself. They define a positive philosophy of the agrarian way of life, as a true antithesis to industrialism and the only reasonable or effective counter-force in the fields of economics, politics, religion, art, and ways of life in general." (Publishers' announcement)

The Country Life of the Nation. By James E. Boyle, Charles E. Allred, Leon E. Truesdell, Ernest C. Young, Eugene C. Branson, Benjamin T. Gunter, Florence E. Ward, Julia D. Connor, Edgar W. Knight, Fannie W. Dunn, Newell L. Sims, John H. Kolb. Edited, with an introduction, by Wilson Gee. 214 p. Chapel Hill, Univ. of North Carolina Press, 1930.

"The Institute of Public Affairs held at the University of Virginia last year brought together the group represented in this volume - all of them among the most thoughtful students of agricultural life in America. Under the major divisions of Farm Wealth Retention, The City-ward Drift of Country Population, Farm Group Activities in the South, The Farm Family, The Country School, Country Community Life, and Cooperative Marketing, the contributors to this volume give a careful and interesting description of the present situation - admittedly one of the most serious problems of our times - and offer definite suggestions for its improvement."

History of Agricultural Education in Ontario. By A. J. Madill. 264 p. Toronto, The University of Toronto Press, 1930.

"In this work an attempt has been made to show the beginnings and development of agricultural education in Ontario in the various schools connected chiefly with the Department of Education."

Occupations for the Agriculturally Trained. A vocational guidance booklet prepared by Edwin T. Reed, College Editor, with the collaboration of the Dean of the School of Agriculture and the Heads, or their representatives, of the College Departments included in the booklet. 79 p. il. Corvallis, Oregon, Oregon State Agric. College, 1930. (Oregon State Agricultural Bulletin No. 464, March, 1930)

The Salt of the Earth. A study in rural life and social progress. By Rinaldo William Armstrong. 233 p. il. Ottawa, Canada, Graphic Publishers Limited, 1930.

"An illuminating and searching analysis of the rural situation in Canada, based on a study of human nature and of typical rural communities both in Ontario and the West."

Menace of Over-Production: Its Cause, Extent and Cure. Edited by Scoville Hamlin. 202 p. New York, John Wiley & Sons, 1930.

A composite view of many able specialists "each dealing with that aspect of industry which he knows as he knows his own profit and loss account." The chapter on "Over-production in agriculture" is by Dr. O. E. Baker, Senior Agricultural Economist, U. S. Department of Agriculture. Another chapter relating to agriculture is entitled "Land wastage encourages over-production" by Dr. J. G. Lipman, Director, New Jersey Agricultural Experiment Station.

Financial Farm Relief. By O. L. Weatherhead, in collaboration with eminent and reliable advisers. 174 p. St. Paul, Minn., The Agricultural Producers Relief Co., 1930.

Endeavors to emphasize those points which the author feels are vital to a solution, such as the farmers' need of a suitable financing system, organization, cooperation, and marketing.

American Industry and Commerce. By Edward Dana Durand, Statistical Assistant to the Secretary of Commerce of the United States. 653 p. Boston, Ginn & Company, 1930.

The aim of this volume is to present a general picture of American industry and commerce. It is in twelve chapters as follows: I. Income and standards of living; II. Economic progress of the United States; III. Primary factors in American progress; the population; IV. Primary factors in American progress: natural resources; V. Secondary factors in American progress; VI. Occupations and branches of industry; VII. General economic geography of the United States; VIII. Agriculture and the foodstuffs industries; IX. Mining and quarrying and related manufacturing industries; X. Manufactures; XI. Transportation and communication; XII. Foreign trade.

Alkali Trails, or Social and Economic Movements of the Texas Frontier, 1846-1900. By William Curry Holden, Professor of History, Texas Technological College. 253 p. Dallas, Texas, The Southwest Press, 1930.

The chapters in this volume are as follows: I. The Nordics Come; II. The Buffalo Slaughter; III. The Cattle Kingdom; IV. Immigration and Settlement; V. Frontier Journalism; VI. Division and Sectionalism; VII. Drouths; VIII. Mirages; IX. Amusements; X. Railroads; XI. Farmers. "The chapters really constitute more or less isolated, descriptive studies bound together by a sort of geographic unity... The movements for the most part are parallel to, or contemporary with, each other. Sometimes they criss-cross and at other times they influence each other."

A Picture of World Economic Conditions in the Early Fall of 1930. No. V. 251 p. New York, National Industrial Conference Board, 1930.

"The special problems giving rise to unsettled economic conditions throughout the world are discussed in this book, which presents important recent developments in the field of industry, commerce, agriculture, and finance in twenty-seven countries.. Part I contains a analysis by the National Industrial Conference Board of the general situation in fifteen European and twelve American countries, including the United States. Employment, wages, cost of living, industrial production, agricultural and financial problems, and foreign trade are treated concisely and authoritatively. Part II is composed of seventeen original articles contributed by foreign correspondents of the Conference Board, a group of authorities eminently qualified to describe important developments in the economic life of their respective countries."

Canada and Her Wheat Pool. The fifth of a series of lectures on the economics of the grain trade. By Sydney S. Gampoll, City of London College, London, October 22, 1930. 56 p. Winnipeg, Canada, Grain Trade News, 1930.

This lecture was first published in the Grain Trade News under the title "Pools and Combines in the Grain Trade". At the request of Mr. Gampell the title has been changed to "Canada and Her Wheat Pool".

The Five-Year Plan of the Soviet Union. A political interpretation. By G. T. Grinko, Vice-Chairman, State Planning Commission of the U.S.S.R. 339 p. il. London, Martin Lawrence Limited, 1930.

"Russia is making an experiment which is of intense interest not only to herself but to the world at large. What is the experiment? It is called the 'Piatuletka' - the Five Year Plan of building up a new industry and a new agricultural system - a gigantic effort of a nation covering one-sixth of the world's surface to push through an industrial technical revolution in five years under entirely new methods of State control.... In this book one of the leaders responsible for carrying out the Plan writes in detail of its economic and political meaning, and gives figures of the achievements up to the end of the second year."

This translation was made from the Russian manuscript of the original four-volume report. The rapid progress of development under the plan, however, has made it necessary to add certain new and revised figures. These, included in editorial footnotes, have been prepared from the official reports as presented in Soviet newspapers and periodicals.

Chinese Farm Economy. A study of 2866 farms in seventeen localities and seven provinces in China. By John Lossing Buck, Professor of Farm Management, College of Agriculture and Forestry, University of Nanking, Nanking, China. 476 p. il. Chicago, Published for the University of Nanking and the China Council of the Institute of Pacific Relations by the University of Chicago Press, 1930.

Hortus. A concise dictionary of gardening and general horticulture. By L. H. Bailey and Ethel Zoe Bailey. 652 p. il. New York, The Macmillian Company, 1930.

"A ready reference handbook for all who have occasion to use information about plants. It gives brief descriptions, correct botanical and common names, and notes on culture and propagation for every group of plants known to be in common cultivation in the United States and Canada. It will be useful alike to gardeners, growers, dealers, propagators, landscape architects, botanists, and students...It replaces neither the Standard Cyclopedia of Horticulture nor the Manual of Cultivated Plants but rather supplements and brings up to date those standard works. It has required more than five years of preparation and is compiled largely from fresh and original sources." (Publishers)

Practical Tomato Culture. By Frank C. Pellett and Melvin A. Pellett. 154 p. il. New York, A. T. De La Mare Company, 1930.

"It is the purpose of this little book to provide, in convenient form, the information necessary to success with tomatoes under a great variety of conditions."

Chrysanthemums Under Glass and Outdoors. By Alex. Laurie. 110 p. il. New York, A. T. De La Mare Company, 1930.

"The object of this book is to bring together the most up to date practices relating to the culture of the chrysanthemum for greenhouse and garden purposes. The information is based largely upon personal observation and a varied nature of experimental work conducted by the writer over a period of many years."

Smith's Chrysanthemum Manual. By Elmer D. Smith. 7th rev. ed. 117 p. Adrian, Mich., Elmer D. Smith & Co., 1930.

"Many of the important chapters have been revised and enlarged, giving more complete details, with additional illustrations."

Azaleas and Camellias. By H. H. Hume. 90 p. il. New York, The Macmillan Company, 1931.

"The first book written for the amateur on these plants." Describes the varieties best suited for various uses and discusses questions of culture, such as soils, fertilization, planting, propagation, and general care indoors and out. Also describes the famous azalea gardens of the southern states and the camellia plantings in the South and on the Pacific Coast.

Garden Pools, Large and Small. By Leonidas W. Ramsey and Charles H. Lawrence. 108 p. il. New York, The Macmillan Company, 1930.

Written for the amateur who will do the work himself but is equally interesting to the owner of town house or country estate as a useful guide to proper landscape use and construction of water features for the grounds. Gives details of pool construction, both for formal and informal water gardens, shows by pictures and text how and where to place water features in the landscape scheme, how to build tub gardens, lily pools and how to plant the water garden and stock it with fish and aquatic plants of all sorts. Gives information on the care of water gardens, mosquito control, and winter protection for northern climates.

Land Drainage and Flood Protection. By Bernard A. Etcheverry, Professor of Irrigation and Drainage, University of California. 327 p. New York, McGraw-Hill Book Company, 1931.

"Deals with the surface drainage and underdrainage of agricultural lands, affected by excessive water due to precipitation or irrigation; the protection of lands against flood and tide waters and the methods of spreading assessments for the apportionment of the cost of several classes of improvements to the areas benefited. It emphasizes fundamental theories and principles of design and, though intended primarily as a textbook for a college course in drainage, it has been planned to be useful to engineers interested in land drainage and the protection of overflow lands, also to trustees, directors, or other officials of reclamation and drainage districts, and to commissioners of assessment."

Margarine as a Butter Substitute. By Katharine Snodgrass, Research Associate, Food Research Institute. 333 p. Stanford University, California, Food Research Institute, 1930. (Fats and Oils Studies of the Food Research Institute, No. 4)

"Describes the past and present status of the margarine and butter industries and of the competition between them. Emphasis falls not only upon the economic aspects but also upon the technological, legal, and nutritional."

The State Highway System of North Carolina. Its evolution and present status. By Cecil Kenneth Brown, Professor of Economics, Davidson College. 260 p. Chapel Hill, Univ. of North Carolina Press, 1931.

This volume "is an attempt to give the story of the state highway system of North Carolina with due regard to the conditions of the past out of which it grew. The first nine chapters are principally narrative in form and trace the history of public roads in North Carolina from the early roads laid out and maintained by local authority a century or more ago down to the last of the bond issues for the state highway system in 1927. The remaining chapters are more analytical in character, being devoted to various phases of the state highway program as it was carried out betwen 1921 and 1929."

Economic Geography of South America. By R. H. Whitbeck, Professor of Geography, University of Wisconsin. 2d ed. 430 p. New York, McGraw-Hill Book Co., 1931.

The revision of the volume consists mainly in making the subject matter as nearly up to date as available information permits. Statistical material is revised, new graphs replace former graphs, and new developments are reported.

Thirty Years War for Wild Life. Gains and losses in the thankless task. By William T. Hornaday. 292 p. il. Stamford, Conn., Permanent Wild Life Protection Fund, 1931.

American Naturists. By Henry Chester Tracy. 282 p. New York, E. P. Dutton & Co., 1930.

Biographical sketches of twenty of America's "greatest men and women - her Naturists". The sketches include John Bartram, William Bartram, Alexander Wilson, John James Audubon, Henry David Thoreau, John Burroughs, John Muir, Olive Thorne Miller, Maurice Thompson, William T. Hornaday, Theodore Roosevelt, Carl Akeley, Roy Chapman Andrews, Edward Howe Forbush, William Leon Dawson, Frank M. Chapman, Walter Prichard Eaton, Liberty H. Bailey, William Beebe, Ernest Thompson Seton, and Mary Austin.

Demons of the Dust. A study in insect behavior. By William Morton Wheeler, Professor of Entomology in Harvard University. 378 p. il. New York, W. W. Norton & Company, 1930.

The principal portion of this book is devoted to Doctor Wheeler's own observation of the ant-lions and worm-lions, and his conclusion as to their biological significance. The book is fully documented and contains chapters on the Eighteenth-Century Naturalists and their observations and on post Eighteen-Century work in this field. The author was for many years Dean of the Bussey Institute for Research in Applied Biology at Harvard and has held the Curatorship of Invertebrate Zoology at the American Museum of Natural History.

A Manual of the Genera of Beetles of America, North of Mexico, Keys for the Determination of the families, subfamilies, tribes, and genera of coleoptera with a systematic list of the general and higher groups. By J. Chester Bradley, Professor of Entomology, and Curator of Invertebrate Zoology in Cornell University. 360 p. multigraphed. Ithaca, N. Y., Daw, Illston & Company, 1930.

The compiler's work in this volume has been to "select, rearrange, abbreviate, combine and translate keys from all the most recent sources, scattered throughout the world's literature on insects."

The Exchange of Energy Between Man and the Environment. By L. G. Newburgh, Professor of Clinical Investigations, and Margaret Woodwell Johnston, Instructor in International Medicine, University of Michigan Medical School. 104 p. Springfield, Ill, Charles C. Thomas, 1930.

The field of nutrition that deals with the sources of transformations of energy is discussed quantitatively in this book. The materials were originally presented as a course of lectures to junior medical students at the University of Michigan. The object was primarily to enlarge their conception of the life processes.

Fifty-two Years of Research, Observation and Publication, 1877-1929. A life adventure in breadth and depth. By Henry Fairfield Osborn, President of Board of Trustees and Honorary Curator of Vertebrate Paleontology, American Museum of Natural History. Edited by Florence Milligan, Literary Secretary. With complete bibliography chronologic and classified by subject, 1877-1929. 160 p. New York, Charles Scribner's Sons, 1930.

The following is from the author's preface: "In September, 1877, I began paleontological research with my classmates Scott and Speir in a small room of the historic building of Princeton, Nassau Hall or 'Old North'. There I learned my first lesson, that research is work of the hardest kind, requiring persistence, intelligence and imagination. In these days of intensive specialization both in education and in research, it is interesting to review the activities of a half-century initiated in the older, broader and more intensive school...One object of this volume is to show the educational value of the older school, chiefly in fitting the mind to attack new problems from the old, broad point of view... Another object is to show that the broad education and the broad point of view never carry us beyond the lecture platform or beyond the reputation of learning and culture unless breadth is the useful threshold for depth. In other words, intensive research through thousands of intelligently directed observations enlightened from time to time by generalizations or hypotheses becomes the starting point for entirely new chains of observation purposely directed to convert a working hypothesis into a new principle or a new law."

Methods and Status of Scientific Research. With particular application to the social sciences. By Walter E. Spahr, Professor of Economics, New York University, and Rinehart John Swenson, Professor of Government, New York University. 533 p. New York, Harper & Brothers, 1930.

"This work provides the student with the three tools necessary to successful research work: the principles of critical scholarship, the proper technique to be used in applying those principles, and a general knowledge of the status of research in the social sciences today."

Cross Sections of Rural Health Progress. Report of the Commonwealth Fund Child Health Demonstration in Rutherford County, Tennessee, 1924-1928. By Harry S. Mustard, Director, Rutherford County Demonstration.

"This report is the record of the absorption by a rural county previously undermanned and underdeveloped in matters concerning the public health, of a budget, a staff, and a plan of work that provide with reasonable adequacy for the protection and gradual betterment of the health of the community." According to the report the conclusion seems justified "that rural counties should, can, and will support a more adequate health service than they have hitherto been credited with desiring."

Part I of the report gives a running story of the project as a whole, presenting high points and summaries but no details nor analyses; Part II contains cross sections of activities, findings, and accomplishments, with interpretations and critical study from the viewpoint of public health administration; the Appendix presents basic tables, exhibiting the statistical material that grew out of the demonstration experience in Rutherford County.

ENGLISH BOOKS

Dictionary of the World's Commercial Products: With French, German and Spanish equivalents for the names of the commercial products. By J. H. Vanstone. 3d ed. 165 p. London, Sir Isaac Pitman & Sons, Ltd. 1930.

"A list of the chief commercial products and manufactures of the world, together with a short description of each of them, and the names of the countries or districts from which they are obtained."

Maize in South Africa. By A. R. Saunders, Senior Research Officer (Summer Cereals), Department of Agriculture, Union of South Africa. 284 p. il. South Africa, Central News Agency, Limited, 1930. (South African Agricultural Series No. 7).

World Agricultural Tractor Trials, 1930. Under the auspices of the Royal Agricultural Society of England in conjunction with the Institute of Agricultural Engineering, University of Oxford. Official report on tests and specifications of machines. 109 p. il. Oxford, Hall, The Printer, 1930.

Memorandum on the Bases of a Stable Cotton Policy. Submitted to H. E., the Minister of Finance. 55 p. Cairo, Egypt, Government Press, 1930.

Report on a study made by A. Abdel Wahhab, Under-Secretary of State, at the request of His Excellency the Minister of Finance.

Science in Soviet Russia. By J. G. Crowther, 128 p. il. London, Williams & Norgate, Ltd., 1930.

In the author's preface he states that most of the sections of this book are reports of conversations he had during a month's tour of the scientific institutions in Leningrad and Moscow.

Some Other Bees, Butterflies and Moths. By Herbert Mace. 160 p. il. London, Hutchinson & Co., n.d.

In this volume the author "leaves the familiar hive bee and describes the little known but peculiarly interesting ways of many relatives of that well-known insect."

Lectures on the Ancient System of Irrigation in Bengal and its Application to Modern Problems. By Sir William Willcocks. 128 p. Calcutta, University of Calcutta, 1930.

An Economic History of Australia. By Edward Shann, Professor of History and Economics, University of Western Australia. 456 p. Cambridge, University Press, 1930.

This account of Australian economic development "attempts to keep in the forefront the private activities by which British settlers in Australia have transformed a prison-yard and hunting-ground of savages into a productive annex to Europe and Asia, proud of using its labour-saving methods as means to general well-being."

Deutsches Schrifttum der Agrarpolitik und Weltlandwirtschaft von 1920-1929. Zusammengestellt von Anton Brosch. 374 p. Berlin, Paul Parey, 1930. (Berichte über Landwirtschaft. Zeitschrift für Agrarpolitik und internationale Landwirtschaft herausgegeben im Reichsministerium für Ernährung u. Landwirtschaft, neue folge, 26. Sonderheft)

Die Zollpolitik der Schweizerischen Landwirtschaft seit 1848. Dissertation der rechts- und staatswissenschaftlichen Fakultät der Universität Zürich zur Erlangung der Würde eines Doktors der Volkswirtschaft vorgelegt von Walter Kupper von Zürich. 202 p. Bern, Druck von Stampfli & Cie, 1929.

Der Realkredit der Deutschen Landwirtschaft. Von Dr. W. M. Freiherrn von Bissing, Privatdozent an der Universität Berlin. 232 p. Berlin und Leipzig, Walter de Gruyter & Co., 1930.

Grundlagen der Rinderzucht. Eine derstellung der wichtigsten für die entwicklung der leistungen und der körperformen des rindes ursächlichen, physiologisch-anatomischen, zoologisch-paläontologischen, entwicklungsmechanischen und kultur-historischen tatsachen und lehren für wissenschaftliches und praktisches studium. Von Dr. J. Ulrich Duerst, Direktor des Zootechnischen Institutes der Universität Bern. 759 p. il. Berlin, Julius Springer, 1931.

Grundzüge der Bodenkunde. Ein lehrbuch für Studierende der Land- und Forstwirtschaft, Kulturtechnik, sowie der Geologie und anderer Naturwissenschaften. Von Dr. Friedrich Schucht, Professor und Direktor des Institutes für Geologie, Mineralogie und Bodenkunde der Landwirtschaftlichen Hochschule Berlin. 405 p. il. Berlin, Paul Parey, 1930.

Grundriss der Tropischen und Subtropischen Bodenkunde für Pflanzer und Studierende. Von Dr. P. Vageller. 217 p. il. Berlin, Verlagsgesellschaft für Ackerbau M.B.H., 1930.

Die Läuse unserer Nadelhölzer. Von Franz Scheidter, Forstmeister i. e. Solln bei München. 119 p. il. Neudamm, Verlag von J. Neumann, 1930.

Der Kartoffelbau nach Seinem Jetzigen Rationellen Standpunkte. Von Dr. Hugo Werner und Prof Dr. Kurt Opitz. 9. auflage. 160 p. il. Berlin, Paul Parey, 1930. (Thaer-Bibliothek, 28. Band)

Tier und Pflanze in Symbiose. Von Paul Buchner. Zweite völlig umgearbeitete und erweiterte Auflage von "Tier und Pflanze in intrasellelarer Symbiose". 900 p. il. Berlin, Verlag von Gebrüder Borntraeger, 1930.

Les Principes de la Méthode Statistique. Avec quelques applications aux sciences naturelles et à la science des affaires. Par Lucien March, Professeur à l'Institut de Statistique de l'Université de Paris. 307 p. Paris, Librairie Félix Alcan, 1930.

Classificazione Ecologia dei Terreni Agrari. By Dott. Michele Briccoli. 102 p. il. Piacenzi, Federazione Italiana dei Consorzi Agrari, 1930. (Laboratorio di Ecologia Agraria del R. Istituto Superiore Agrario di Perugia)

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CONGRESSES, EXPOSITIONS AND ANNIVERSARIES

Fifty Years of Service in Agriculture. Being a brief history of the New Jersey State Agricultural Experiment Station, 1880-1930. On the occasion of the semi-centennial commemoration exercises, October 8 and 9, 1930. New Brunswick, State Agric. Exper. Station, 1930.

An interesting account of the semi-centennial commemoration exercises is given in the editorial in the Experiment Station Record for December, 1930.

Report of the Extension Conference held at the University of Maine, College of Agriculture, Orono, July 8-11, 1930. 40 p. mimeogr. Orono, College of Agric., Univ. of Maine, 1930.

White House Conference on Child Health and Protection. Report of the Committee on the family and parent education. Louise Stanley, Chairman, Judith Clark, Secretary. 36 p. Washington, D. C., 1930.

Expositions Internationales d'Anvers et de Liége, 1930. Voeux de la Quinzaine Agricole Internationale. A.-Rôle de l'homme en agriculture; B.-Production agricole; C.-Economie rurale. 80 p. Louvain (40, Rue des Joyeuses-Entrées), Secretariat du Comité de Coordination de la Quinzaine Internationale Agricole, 1930.

Le Congrès du Mouton. Paris, 9-10-11 Décembre 1929. Tome I. Rapports et Discussions. 1135 p; Tome II. Monographies des Races Ovines. 360 p. Paris, Publications de la Société Nationale d'Encouragement à l'Agriculture, 1930.

Premier Congrès National des Fruits de France et des Colonies, 25-30 Octobre, 1929. Compte Rendu General. 335 p. Paris, Office Général des Fruits de France et des Colonies, 1929.

Compte Rendu de la Journée des Ingénieurs agronomes de Gembloux, organisée le 23 Aout 1930, a Liége, a l'occasion du XLe Anniversaire de la Fondation de l'Association. 59 p. il. Auderghem-Bruxelles, Assoc. des Ingénieurs Sortis de l'Int. Agronomique de l'Etat a Gembloux, 1930.

Die Tierärztliche Hochschule Hannover. Festschrift aus anlass der Hundertfünfzig-Jahrfeier am. 13.-15. Juni 1928. 415 p. il. Hannover, Verlag von M. & H. Schaper, 1929.

The 15th International Congress of Agriculture will be held in Prague, Czechoslovakia, June 5, 6, 7 and 8, 1931. An organizing committee has been charged with preparatory activities for this Congress, with Dr. Vlad. Hrdlik, formerly Minister of Agriculture and for Supply of the people, as chairman, and Dr. Ot. Kádner, director of the High School of Agricultural Cooperation as secretary. The organizing committee is composed of sixty delegates of agricultural associations and scientific and technical institutes. Detailed information regarding the Congress may be obtained from the Organization Bureau, XVth International Agricultural Congress, Prague II, Na Florenci 27., Czechoslovakia.

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MISCELLANY

"Cotton Literature - Selected References" is the title of a new mimeographed publication to be issued monthly by the Library of the U. S. Department of Agriculture with the cooperation of the Bureau of Agricultural Economics, Bureau of Plant Industry, and the Bureau of Entomology. Miss Emily L. Day, Library Specialist in Cotton Marketing, Bureau of Agricultural Economics, will have charge of the compilation. Vol. 1, no. 1, January, 1931, has just been issued.

A paper entitled "Alumni education and its relation to the library of the changing college", which was presented by Mr. Charles H. Brown, Librarian, Iowa State College, before a meeting of the College Librarians of the Middle West, Chicago, December 29, 1930, has been printed in the Bulletin of the American Library Association, vol. 25, no. 1, January, 1931. On December 30, the A.L.A. Board on the Library and Adult Education endorsed a study of books and libraries in relation to the changing curricula in colleges and universities. As a result members of the Joint Advisory Committee on Alumni Education instructed Mr. Brown, chairman, to outline such a study and submit it for criticism to the Committee and to the administrative board of the A. L. A. College and Reference Section.

The Director of the New Hampshire Agricultural Experiment Station has recently completed a publication entitled "Research in agricultural economics in the northeastern states. A classified list of active and completed projects conducted in agricultural economics by the agricultural experiment stations of the northeastern states during the years 1910-1930 together with titles of publications on the same." In this publication, which is mimeographed, the projects are classified under the headings of "Farm Management", "Cost of Production", "Marketing", and "Other". Each of these headings has several subheadings. The titles of projects and bulletins are given, each title is followed by the issuing state, years conducted, years published, number of pages, and number of copies. The publication contains 66 pages.

A pamphlet of 63 pages entitled "A plan for filing and indexing educational material", prepared by Frederick J. Weersing, Professor of Education, University of Southern California, has recently been published by Associated Students Store, Los Angeles. It is a scheme for filing and indexing educational materials for personal and individual use. "It is not intended to take the place of any library system or other comprehensive plan of indexing. It has been prepared in the hope that it will assist and stimulate students and members of the teaching profession to make a more systematic collection and use of professional literature and sources of materials than is commonly done at the present time... It is not designed to include all educational materials in a single system such as the Readers' Guide, the Education Index, the Loyola Index, and the Dewey Decimal System. It is intended, rather, to supplement such systems by providing a scheme for a more intensive treatment of a subject than these systems permit."

"Southern Economic Extension, 1930-1931" is the title of a new mimeographed series issued in the interest of southern agriculture by the U. S. Department of Agriculture in cooperation with the Federal Farm Board and the state agricultural colleges. The purpose of the series is to keep extension workers and others interested in the southern farm program informed of the activities, methods and results of economic extension in the Southern states based on outlook reports and other timely economic information. The first number appeared November 8, 1930.

"Biological Abstracts: History and Procedure", is the title of an article by Dr. Frederick V. Rand, Associate Editor of Biological Abstracts, appearing in D. C. Libraries (issued by the District of Columbia Library Association), vol. 2, no. 1, 1930. Reprints of the article are available upon application to Doctor Rand.

Wisconsin Beekeeping for December, 1930 (vol. 7, no. 12), contains on pages 119-120 the beginning of a catalog list of the known beekeeping periodicals printed outside the United States and Canada, with a record of those volumes contained in the Miller Memorial Library at Madison. The list is compiled by Professor H. F. Wilson, Custodian of the Library and Editor of Wisconsin Beekeeping. Professor Wilson plans to publish two pages in each issue of Wisconsin Beekeeping until the list is completed.

The University of Illinois Library School Alumni News Letter no. 14, December, 1930, contains a list of Masters' Theses in Library Science which have been prepared since 1926 and also a list of those which are in preparation. The following are of special interest to agricultural libraries. The extension work of Land grant college libraries, by James R. Gulledge. (In preparation); Iowa State documents, by Helen Stewart. (In preparation); Kansas State documents, by Beatrice H. Holt. (In preparation); An annotated checklist of South Dakota documents, together with a history of the printing, publishing and distribution of these documents, by Ruth C. Krueger. (In preparation); Agricultural periodicals in the United States, by Allen Ditmars Wilson.

America's leading specialists in education will select the most important articles published in their respective fields for the Office of Education's "Record of Current Educational Publications", according to an announcement made by Wm. John Cooper, U. S. Commissioner of Education. For 18 years the Record of the most important articles in 79 different phases of education has been prepared in entirety every three months by the library division of the Office of Education. Now the 79 phases of education covered have been divided into 14 major groups. A specialist in each of the 14 fields has been invited to submit quarterly a list of the notable articles in his particular field appearing in educational magazines, important books, reports, proceedings and other publications. Their first selections for the quarter October to January are expected from the press in February. (School and Society, v.XXXIII, no. 840, January 31, 1931, p. 166)

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NOTES ON PERIODICALS

"Illinois Farmer (formerly Orange Judd Farmer) has been purchased by the Prairie Farmer Publishing Company and will be merged with the Illinois edition of Prairie Farmer. Prairie Farmer, which has been published in Illinois since 1841, now becomes the only Illinois farm paper. This is the result of a long series of mergers, of which this is the last. In 1912 Prairie Farmer took over the Farmer's Voice. At various times since, the Orange Judd Company absorbed the Farmers Review, the Farm Home and the Illinois Farmer. Economies which will result from the absorption of Illinois Farmer will enable Prairie Farmer to expand still further its familiar record of service to the farmers of Illinois."

Alabama economic review; a monthly summary of agricultural, industrial and financial conditions. Auburn, Ala., mo., 8°. v. 1, no.1, Dec. 1, 1930.

American fruit grower magazine. Chicago. Changed to American fruit grower with v. 51, no. 1, Jan. 1931.

American herdsman. Peoria, Ill. Changed to American Hampshire herdsman with v. 6, no. 1, Jan. 1931.

Annali della sperimentazione agraria. Rome. 4°. il. v. 1, 1930. Published by the Ministero dell' agricoltura e delle foreste. Fondazione per la sperimentazione e la ricerca agraria.

Bollettino di zoologica. Istituto zoologica, R. Università, Napoli. 4°. il. anno 1, no. 1, Feb. 1930. L.50 per annum.

Colombia ganadera, revista mensual ilustrada de ganaderia. Bogota, Colombia. mo. 8°. il. v. 1, no. 1, Sept. 1930. $2.00 per year.

Ecological monographs. Duke university press, Durham, N.C. quar. 4°. v. 1, no. 1, Jan. 1931. $6.00 per annum.

Farm topics. Fort Wayne, Ind. Discontinued with v. 7, no. 5, May, 1930.

Imperial food fournal and dominions meat and produce gazette. London. Discontinued with v. 10, no. 117, Sept. 25, 1930. Succeeded by Imported food journal and modern meat marketing.

Imported food journal and modern meat marketing. Empire House, St. Martin's-le-Grand, London, E. C. 1, mo., 4°. il. v.1, no.1, Oct. 1930. 7/6 an. Successor to Imperial food journal and dominions meat and produce gazette.

Southern fur animals and poultry digest. Charlotte, N. C. Changed to American fur animals and poultry digest with v. 3, no. 4, Nov. 15, 1930.

Texas farm bureau cotton association. Farm bureau news. Temple, Texas. Changed to Texas cotton cooperative association. Texas cooperative news, with v. 10, no.10, May 15, 1930.

Die volksernährung. Berlin. Changed to Zeitschrift für volksernährung und diätkost with v. 6, no. 1, Jan. 5, 1931.

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OFFERS

The Library of the U. S. Department of Agriculture has the following publications for exchange:

Arnold, L. B. American dairying: a manual for butter and cheese. Rochester, N. Y., 1876.
Beal, W. J. Grasses of North America for farmers and students. 1887.
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Congrès de l'alimentation du betail bovin et du contrôle laitier. Travaux du congrès.... Paris, 28-29 Octobre 1925. 1926.
Crookes, William. Select methods in chamical analysis (chiefly inorganic). 3d ed. London, 1894.
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Forest and stream. v. 22-23.
French, Henry F. Farm drainage. New York, 1859.
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Henderson, Peter. Gardening for pleasure. New York, 1875.
Hyatt, T. Hart. Hyatt's hand book of grape culture. 2d ed. San Francisco, 1876.
International congress of applied chemistry. 7th. London, 1909.[Papers] Organization. Section 1-4a1; section 4b; section 5; section 6b-8b; section 9-11.
International congress of applied chemistry. 8th, Washington and New York, 1912. Original communications, v. 7-13.
Lasteyrie, C. P. de. A treatise on the culture, preparation, history and analysis of pastel, or woad... Trans. from the French by H. A. S. Dearborn. Boston, 1816.
Short stories about famous saddle horses. v. 1, no. 1-8, Apr.-Nov., 1910.

The Pennsylvania State College Agricultural Library offers the following duplicates:

Northern nut growers' Association, Report, 1/2 (1910-11); 3 (1912).

The Librarian of the International Institute of Agriculture has sent to the U. S. Department of Agriculture Library for distribution to libraries a few copies of the "Classification Scheme of Agriculture" issued by the Institute in 1930. Librarians who wish copies should apply to the Librarian, U. S. Department of Agriculture. There will be no charge other than the cost of postage which is seven cents each.

SELECTED LIST OF MIMEOGRAPHED PUBLICATIONS
of the U. S. Department of Agriculture
issued during December, 1930-January, 1931, exclusive of
current issues of serials.*

Bureau of Agricultural Economics

Consumers demand for apples in New York City. Report on a survey made in 1927 and prepared for reference by other research workers. 40 p. (Issued in cooperation with the New York food marketing research council)

The effect of the business depression on agriculture. By O. C. Stine. 4 p.

Factors affecting the acreage of flue-cured tobacco. By J. B. Hutson. 16 p. (Issued by Division of Statistical and historical research)

Farm population associated with size of farms with value of farm land and buildings, with mortgaged owner-operated farms, with location of farms on kind of roads. Based on the 1925 Census of Agriculture. By C. J. Galpin. 13 p. (Issued by Division of farm population and rural life)

Historical background of the present situation in southern agriculture. By Everett E. Edwards. 13 p.

Marketing Florida potatoes, summary of 1930 season. By R. L. Sutton. 19 p. (Issued by Division of fruits and vegetables)

Marketing Florida strawberries in 1930. By R. Maynard Peterson. 15 p. (Issued by Division of fruits and vegetables)

Marketing Imperial Valley lettuce, summary of 1930 season. By R. H. Lamb and L. T. Kirby. 60 p. (Issued by Division of fruits and vegetables)

Marketing Lower Rio Grande Valley Texas cabbage crop, summary of 1929-30 season. By W. D. Googe. 25 p. (Issued by Division of fruits and vegetables)

Marketing North Carolina strawberries, summary of 1930 season. By R. E. Keller. 22 p. (Issued by Division of fruits and vegetables)

Marketing southern Alabama potatoes, summary of 1930 season. By H. F. Willson. 25 p. (Issued by Division of fruits and vegetables)

Marketing Texas bermuda onions, summary of 1930 season. By J. B. Owens and C. D. Schoolcraft. 36 p. (Issued by Division of fruits and vegetables)

*For a list of the principal series issued regularly, see v. 4, no. 102, p. 347

SELECTED LIST OF MIMEOGRAPHED PUBLICATIONS

Bureau of Agricultural Economics
(Cont'd)

Marketing western New York apples, summary of the 1929-1930 season. By J. P. Klein and A. L. Thomas. (Issued by Division of fruits and vegetables)

Marketing western New York carrots, summary of the 1929-30 season. By J. P. Klein and A. L. Thomas. 17 p. (Issued by Division of fruits and vegetables)

Marketing west Florida vegetables, Manatee, Sarasota, and Wauchula sections. Celery, tomatoes, peppers, eggplant, cucumbers, lettuce, cabbage, and mixed vegetables. Summary of 1929-30 season. By R. Maynard Peterson. 10 p. (Issued by Division of fruits and vegetables)

Relation between production, prices, and acreage of potatoes in North Carolina. By L. H. Bean. 7 p. (Issued by Division of statistical and historical research)

Rice facts. 1930-31 Outlook with charts. 5 p.

Statistics and charts of the range livestock industry, with special reference to the seventeen western states. Compiled by R. D. Jennings. 120 p.

Wheat surplus reduced by heavy feeding. 2 p.

Bureau of Dairy Industry

A plan for a students' dairy-cattle judging contest. 18 p. (BDIM 537) (Issued by Division of breeding, feeding and management investigations)

Office of Experiment Stations

The integration of research and extension for progressive agricultural adjustments. By B. Youngblood. 18 p.

Organization of a program of research. By Sybil L. Smith. 16 p.

Extension Service

Farmers' Institutes, 1930. By J. M. Stedman. 5 p. Extension Service circular 152. (Issued by Office of cooperative extension work)

Methods of arriving at economic readjustments for the South. By C. L. Chambers. 10 p. Extension service circular 149. (Issued by Office of cooperative extension work)

WANTED: NEWS ITEMS FOR AGRICULTURAL LIBRARY NOTES

WHAT IS NEWS? News in this case is anything that interests you as an agricultural librarian. If it interests you it will probably be interesting to other agricultural librarians as well. Please send notes on bibliographies and bibliographical work in progress, on new developments in your work, on changes in personnel and changes in positions, on reorganization plans, on new publications of your college, on important accessions to your library, etc., etc.

We are also anxious to have you send (1) articles of your own bearing on agricultural library work, (2) comments on articles appearing in Agricultural Library Notes, and (3) suggestions as to how Agricultural Library Notes may be made of more service to you in your work.

Mail items to Miss C. R. Barnett, Librarian, U. S. Department of Agriculture, Washington, D. C.

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and additional plain sheets if needed.
(Write in single space)

SELECTED LIST OF MIMEOGRAPHED PUBLICATIONS

Extension Service

Coordination of farm-management extension programs. By V. B. Hart, 13 p. Extension service circular 144. (Issued by Office of cooperative extension work)

Bureau of Plant Industry

Emergency hay and pasture recommendations. What to sow in 1931. 13 p. (Issued by Office of forage crops and diseases in collaboration with the office of cereal crops and diseases)

Bureau of Public Roads

Preventing the freezing of cut flowers in transit. By W. V. Hukill and R. C. Wright. 6 p. (Issued in cooperation with Bureau of plant industry)

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AGRICULTURAL LIBRARY NOTES

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Vol. 6 February, 1931 No. 2

LINCOLN'S ATTITUDE TOWARD FARM PROBLEMS*

By Everett E. Edwards, Associate Agricultural Economist, Bureau of Agricultural Economics, U. S. Department of Agriculture.

Last summer I visited Lincoln's birthplace, now a national shrine some three miles South of Hodgenville in the heart of Kentucky. The rude log hut as it stood at the time of his birth was without a floor except for the ground and its roof was made of rough slabs held in place by poles and stones. A small, square opening, possibly covered with greased paper, served as a window. Inside, at one end was a wide fireplace of stone with a chimney of sticks and clay. The bed in an opposite corner was made of a crotched stick, with poles leading from it to the walls of the cabin, and rough slabs. This cabin stood on the edge of a tract of poor land which had few trees and which was covered with tall, coarse grass. The land itself could hardly be called a farm; it was so unproductive. Lincoln's father had purchased the 300 acres in 1808 for $200. The chief distinguishing feature of this farm is a spring which supplies water even today to those who journey to this famous historic spot. It flows from a horizontal cave-like channel of rocks in the low hillside immediately in front of the cabin and then drops abruptly into a perpendicular opening of rock where it disappears. Hence, the name Sinking Spring Farm. Here the first four years of Lincoln's life were passed. (1).

Lincoln's early boyhood was spent on a somewhat more fertile farm of thirty acres near Knob Creek about ten miles northeast of his birthplace. Because of hills and gullies only 14 acres could be tilled. Here he and his sister attended their first brief period of school. The boy, we are told, went clad in 'a one piece long linsey shirt' without other garments. (2).

In the fall of 1816 the Lincoln family moved again, this time across the Ohio River and into the heavily wooded wilderness of southern Indiana. Here they established themselves on a knoll surrounded by marshy land, infested with malaria and without a supply of water within a mile. Although his father acquired an option on 160 acres, to be paid for in instalments at $2.00 per acre, payments on only one-half this amount were ever completed. His father continued to vary his hunting and farming by working at carpentering. In 1824, seven years after their arrival in Indiana, 10 acres of corn, 5 acres of wheat, and 3 acres of oats was the extent of the tilled land on the Lincoln farm. The result was that the boy was hired out to do ploughing, splitting rails, grubbing, making fences, etc. He also worked as a ferryman on the Ohio River; for this work his father received $6.00 a month. During the hog packing season, however, he received an additional 31 cents a day (3).

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*This paper was originally prepared and presented by the author as a radio talk, delivered through WRC and 39 other radio stations associated with the National Broadcasting Company, February 12, 1931.

Early in the spring of 1830, the Lincoln family pushed westward once more, this time to the bluffs along the Sangamon River, in Macon County, Illinois (4). Soon afterward, having reached his majority, Lincoln left his family and began life for himself. The facts, summarized thus far, give us a picture of the life of the farm boy Lincoln of a century ago. The farming he knew in his youth was poineer exploitation rather than settled cultivation (5), and hardly comparable with farming as we know it today. We can see the influence of this early agricultural environment in his stories and in the choice of illustrations used in his speeches (6). Lincoln himself never owned any farm land except two small tracts in Iowa, secured as military bounty for his services in the Black Hawk War. (7).

At twenty-three, Lincoln announced his candidacy for the Illinois legislature. In a long address to the people of Sangamon County, he pointed out the need for internal improvements, - good roads, navigable streams, and canals. He endorsed railroads, then a new means of transportation, and demanded more careful regulation of banks. He referred to education as the "most important" subject of all(8). The dexterity with which he handled the issues in this address is early evidence of his native ability as a political strategist.

Although defeated in this first attempt (1832) he won two years later and served four consecutive terms. Later he had one term in the National House of Representatives (1847-1849). As has been said "Lincoln's early public career can be best understood as that of an ardent champion, promoter, booster of his section, state and locality" (9). His years as a lawyer riding the court circuit added to his political sagacity and also to his knowledge of the problems of the pioneer farmer. The result was that during the 1850's he "came slowly but surely to represent the frontier, the farmer, and the small town democracy ... as few other men ever represented a people" (10) and emerged as a logical and formidable candidate for the presidency.

Lincoln's address before the Wisconsin State Agricultural Society, at its annual fair in Milwaukee on September 30, 1859, is the only extended discussion of agriculture which he ever made (11). Even today, it is interesting reading and worthy of being summarized. He emphasizes the value of the social and recreational features of agricultural fairs, but also goes on to point out that "the chief use of Agricultural Fairs is to aid in improving the great calling of Agriculture ... (and) to make mutual exchange of agricultural discovery, information, and knowledge ...." He then proceeds to make general suggestions on what he considered practical farm problems. In this connection, his chief concern is the startling reduction in grain yield which he has observed in his travels. To check this, he pleads for more intensive cultivation, not only from the view of economics, but because of the desirable influence upon the farmer himself. He says, "the effect of thorough cultivation upon the farmer's own mind, and, in reaction through his mind, back upon his business, is perhaps quite equal to any other of its effects. Every man is proud of what he does well and no man is proud of what he does not well." Sensitive to the great changes which were then taking place in agricultural machinery he discusses at considerable length the application of steam power to

farm work. He also emphasizes what he calls "book learning". On this subject, he says: "A capacity, and taste, for reading, gives access to whatever has already been discovered by others. It is the key, or one of the keys, to the already solved problems ... It gives a relish and facility for successfully pursuing the unsolved ones." In introducing this topic, he uses the famous phrase, now carved over the entrance of the administration building of the United States Department of Agriculture: "No other human occupation opens so wide a field for the profitable and agreeable combination of labor with cultivated thought, as agriculture".

During the first two years of Lincoln's presidency three bills of vast significance to agriculture were passed (12). All were part of the political platform upon which he had been elected. Lincoln signed the organic law establishing the United States Department of Agriculture with a commissioner at its head, on May 15, 1862 (13). Five days later, he signed the Homestead Act, the law by which approximately 232,000,000 acres have been transferred from the public domain to private hands to form perhaps one and one-third million farms (14). On July 2 of the same year he signed the Agricultural College Land Grant Act. It appropriated land which forms the basis of the endowments of our agricultural colleges, so important to our agriculture and educational system today. (15). All three of these important laws were the culmination of movements extending over considerable time, but even so, Lincoln had his part in their enactment; his predecessor had vetoed two of them and it remained for Lincoln to sign them and make them operative.

References

(1) This description of Lincoln's birthplace follows closely that given in A. J. Beveridge, "Abraham Lincoln," 1809-1858 (New York, 1928), 1; 3-4.
See also W. E. Barton, "The Life of Abraham Lincoln" (Indianapolis, 1925).

(2) The Knob Creek farm and Lincoln's boyhood there are described in Beveridge, "Abraham Lincoln", 1;26-31.

(3) For an account of the moving to Indiana and the years there see Beveridge, "Abraham Lincoln", 1:32 ff. For the material in this paragraph note particularly p. 32, 47, 60, 65, 84-85.

(4) For an account of the migration of the Lincoln family from Salem, Mass., to Springfield, Ill., 1637-to 1837, see L. A. Warren, "Lincoln Lands and Lineage; A Typical American Migration", (Illinois State Hist. Soc. Trans. 1927: 144-153).

(5) The best discussion of Lincoln's interest in farm problems is by E. D. Ross in his article entitled "Lincoln and Agriculture"(Agr. Hist. 3: 51-66, Apr. 1929).
See also O. C. Stine, "Lincoln and Agriculture", a radio talk delivered through station WRC and 32 other radio stations associated with the National Broadcasting Company, February 12, 1930.
A list of references affording a background for the subject of Lincoln's attitude toward farm problems is provided in "A Bibliography of the History of Agriculture in the United States" by E. E. Edwards (U. S. Dept. Agr. Misc. Pub. 84, 1930).

(6) This point is emphasized by Ross, "Lincoln and Agriculture" (Agr. Hist. 3: 53). He refers to Barton, "The Life of Abraham Lincoln", 2: 220, 311; A. K. McClure, "Yarns and Stories of Abraham Lincoln" (Chicago, n.d.), p. 23, 34, 58, 90, 99, 132, 153, 247; Ida M. Tarbell, "In the Footsteps of the Lincolns" (New York, 1924), 137.

(7) E. R. Harlan, "Lincoln's Iowa Lands", in Annals of Iowa, 3d series, 15: 621-623 (April, 1927).

(8) See Beveridge, "Abraham Lincoln", 1:114-126, for an analysis of this "address to the people of Sangamon County" and an account of his first campaign.

For Lincoln's interest in railroads, see J. W. Starr, "Lincoln and the Railroads: A Biographical Study" (New York, 1927).

(9) Ross, "Lincoln and Agriculture" (Agr. Hist. 3:55).

(10) Quoted from the Foreword of W. E. Dodd, "Lincoln or Lee" (New York and London, 1928).

See also V. L. Parrington, "Main Currents in American Thought" (New York, 1927-1930), II. The Romantic Revolution in America, 1800-1860, p. 152-160.

(11) This address was first printed in the Wis. State Agr. Soc. Trans. (1858-59) 5:287-297. It is reprinted under the title, "Lincoln's 1859 Address at Milwaukee," with an introductory note by Joseph Schafer, in the Wis. Mag. Hist. 10:243-258 (March, 1927). All except the last five pages has also been reprinted as a little pamphlet, "An Address by Abraham Lincoln before the Wis. Agri. Soc., at Milwaukee, Wis., September 30, 1859" (Peoria, Ill., Printed by E. J. Jacob, 1929).

(12) Ross, "Lincoln and Agriculture" (Agr. Hist. 3: 57-66).

(13) See C. H. Greathouse, "Historical Sketch of the United States Department of Agriculture" (U. S. Dept. Agr. Div. Pubs. Bul. 3).

See also H. B. Learned, "The President's Cabinet" (New Haven, 1912) ch. 11, Establishment of the Secretaryship of Agriculture, p. 292-345.

See also W. L. Winlass, "The United States Department of Agriculture" (Baltimore, 1920), ch. 1, A Brief History of Federal Agricultural Legislation in the United States, p. 9-32.

See also Edward Wiest, "Agricultural Organization in the United States" (Lexington, Ky. , 1923), ch. 2, The United States Department of Agriculture, p. 21-48.

See also Ross, "Lincoln and Agriculture"(Agr. Hist. 3: 58-59).

For additional references see Edwards, "A Bibliography of the History of Agriculture in the United States", p. 204-209.

(14) See B. H. Hibbard, "A History of the Public Land Policies" (New York, 1924), ch. 17-18, and especially p. 396-398 for a table of the yearly totals of all final homestead entries from the passage of the Homestead Act of 1862 to June 30, 1923.

See also J. T. Du Bois and Gertrude S. Mathews, "Galusha A. Grow, the Father of the Homestead Law" (Boston and New York, 1917).

See also Ross, "Lincoln and Agriculture" (Agr. Hist. 3: 62-63).

For additional references, see Edwards. "A Bibliography of the History of Agriculture in the United States", p. 53-57.

(15) See especially p. 88-108 of A. C. True's "A History of Agricultural Education in the United States, 1785-1925" (U. S. Dept. Agr. Misc. Pub. 36. 1929).
See also W. B. Parker, "The Life and Public Services of Justin Smith Morrill" (Boston and New York, 1924), ch. 11, The Land-Grant College Acts, p. 259-284.
See also E. J. James, "Origin of the Land Grant Act of 1862 (The So-Called Morrill Act) and Some Account of Its Author, Jonathan B. Turner" (Urbana-Champaign, Ill., 1910).
See also Mrs. Mary (Turner) Carriel, "The Life of Jonathan Baldwin Turner" (Jacksonville, Ill., 1911).
For additional references see Edwards, "A Bibliography of the History of Agriculture in the United States", p. 209-214.

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AROUND THE AGRICULTURAL LIBRARY CIRCUIT

New York

"An increased appropriation for the purchase of botanical, floricultural and horticultural books is needed urgently by the New York Botanical Garden in the Bronx, where one of the few comprehensive botanical libraries in America is housed, says Dr. E. D. Merrill, director in chief, in a recent report. This library is the only one in the world to specialize in books on paleobotany. Rare books and early manuscripts are under the care of Dr. John Hendley Barnhart, bibliographer. The reputation of the library is widely known and botanists from all parts of the country are constantly asking for information. This storehouse of botanical and horticultural literature is not a circulating or loan library, so that those who wish to consult any particular volume can count on being able to locate it at any time, as books are never removed from the building." (The Publishers' Weekly, Jan. 31, 1931, p. 594)

Oklahoma

The Oklahoma Agricultural and Mechanical College Library has recently issued a bibliography entitled "Sound and acoustics: a selected list of references taken from journals, publications of the United States Government, publications from state engineering experiment stations, technical societies, and books." It is a mimeographed publication of 38 pages and is No. 3 in the "Library Bibliography" series.

Russia

The Library of the International Agrarian Institute, Vosdvigenka 14, Moscow, U.S.S.R., has published a Russian translation of Class 63 of the decimal classification of the International Bibliographical Institute of Brussels, published in 1927-1929. The copy belonging to the Library of the U. S. Department of Agriculture was presented by the Librarian of the International Agrarian Institute, M. Konstantinow.

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Wheat: references on the cost of producing wheat in the United States and in foreign countries, 1923-1930. Comp. by Louise O. Bercaw, Library, Bureau of Agricultural Economics, U. S. Department of Agriculture. 28 p. Typed. (May be borrewed for copying)

Greensand bibliography to 1930 (annotated). With a chapter on zeolite water softeners. By R. Norris Shreve. 78 p. Bureau of Mines, U. S. Department of Commerce, Washington, D. C. (Bulletin 328)

In this bibliography a short synopsis has been included with each important reference. These synopses are believed to be sufficiently complete to present a general view of the original article and in many items specific parts of the article are included. The references are arranged alphabetically by author under one of the five main headings.

Bibliography of North American Geology, 1919-1928. 1001 p. Geological Survey, U. S. Department of the Interior, Washington, D. C. (Bulletin 823)

Lists publications on the geology, including paleontology, petrology, and mineralogy, of the Continent of North America and adjacent islands and on Panama and the Hawaiian Islands, for the years 1919-1928. It includes textbooks and papers of general character by American authors, but not those by foreign authors, except papers that appear in American publications. The papers, with full title and medium of publication, are listed under the names of their authors, which are arranged in alphabetic order. The author list is followed by an index to the literature cited.

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NOTES ON PERIODICALS

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College news bulletin. Imperial college of tropical agriculture, St. Augustine, Trinidad. quar. 4°. no. 1, Ja. 1931. Supplied gratis to all subscribers of Tropical agriculture; otherwise, 2 shillings a year.

Economic annalist. Agricultural economics branch, Department of agriculture, Ottawa. mo. diagrs. 8°. v. 1, no. 1, Ja. 1931. Free.

Imported food journal and modern meat marketing. London. Changed to Modern meat marketing and imported food journal, with v. 1, no. 4, Ja. 1931.

Maryland fruit grower. College Park, Md. mo. 8°. v. 1, no. 1, Feb. 1931. Pub. by the Maryland state horticultural society.

Wöchentliches verzeichnis der erschienen und der vorbereiteten neuigkeiten des deutschen buchhandels. Hinrichs (publisher), Leipzig. Changed to Deutsche nationalbibliographie. Reihe A: Neuerscheinungen des buchhandels. Reihe B: Neuerscheinungen ausserhalb des buchhandels, with Ja. 3, 1931.

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PLANT PATENTS: A BRIEF HISTORICAL SURVEY, WITH REFERENCES

By Magdalene R. Newman, Library Reference Assistant,
Office of Horticultural Crops and Diseases,
Bureau of Plant Industry, U. S. Department of Agriculture.

The question of providing legal protection for the originators or holders of new horticultural varieties was brought into notice in this country more than a half century ago. In the later 60's agricultural and horticultural journals were giving a comsiderable amount of space to articles pointing out the need of such legislation. Editorial comment was not particularly encouraging at that time. While it granted the justice of the claim of the horticulturists for the rights enjoyed by the literary man and the mechanic it almost invariably pronounced the plans proposed for obtaining such recognition impolitic and impractical. Nevertheless, interest in the subject increased and the exchange of views often waxed acrimonious, so much so that the editors were often charged with exercising undue discrimination in their acceptance or rejection of articles on the subject. Opinions of some of the more outstanding horticulturists of the day began to appear in their columns. We find A. S. Fuller advocating "an agricultural bureau at Washington where new fruits, flowers or grains may be deposited with an accurate description of the same- the depositor furnishing proof that he is the originator and receiving a certificate therefor, and this shall secure to him the sole right to propagate and sell the article for the same for a period of years as in the case of patents." (Horticulturist. 23: 182. June 1868)

In December 1868 a "Committee of ten" was appointed by the Lake Shore Grape Growers" Association to get a law passed by Congress "making it the duty of the Patent Office Department to grant letters patent on new horticultural varieties, involving a royalty for the benefit of the originator on all plants sold or given away of the kind of which he may be the patentee." Among those opposing this action we find Patrick Barry who in the Rural New Yorker, 20: 21. 1869 says:

"As a horticulturist I protest this movement and hope that Congress will pay no attention to it. The originators of valuable varieties of fruits, grains or vegetables have it in their power now to secure ample compensation; and it is their own fault if they do not. If they have not the facilities, or do not wish to engage in propagating them they can always sell at prices that will pay them well. The history of the introduction of new plants and vegetables proves this conclusively...

"Then think of what a work in a patent way it would create! Who would be the judge as to whether an article would be worthy of a patent? I have known people to claim old and well known fruits as seedlings. I have known instances, I might say by thousands, of people supposing they had produced or discovered a valuable fruit, when, in fact, it was utterly worthless.

"All such persons would of course flock to the Patent Office to become the owner of a patented novelty; and probably, in most instances, more money would be expended in procuring the patent than the production would be worth.

"In my opinion, the influence of a patent law of this kind would be to retard the dissemination of new things and in this way be a positive damage to the country...

"For these and many other reasons I am in favor of letting this matter regulate itself, as it does at present..."

In his Magazine of Horticulture for October 1868 Mr. Hovey, the editor, discusses the question "How shall we encourage and stimulate the production of new varieties of fruits and plants, and in what manner secure a proper reward for the producer?"

After reviewing the arguments of those who would extend the laws to include horticultural varieties Mr. Hovey gives as his own opinion:

"It is a question whether horticulture would secure any permanent benefit to be hedged about with patents and subject to the injuctions and litigations which would be sure to follow; it would, we fear, lose much of its character as a science and art, and lessen its hold upon those who view it not as a commercial speculation but as a source of pure enjoyment and delightful recreation..."

The attempt of the "Committee of ten" to obtain congressional action having failed we find the following comment in the Horticulturist, 24: 219-220, 1869:

"We are glad at last to see the patent business for horticultural subjects has received a quietus-on full consultation with the different departments and committees at Washington, it has been decided not advisable, nor even possible, to adopt a satisfactory method for the protection of this class of home productions.

"We believe, with others, that a man who originates a new vine, fruit, or plant should have not only due honor, but profit for his long experiments; but really how is it to be done? ...

"We believe there is too much humbug in the revamping of old varieties under new names, and as Mr. Fuller suggests, a good office of registration, with the power of national authority, would be very desirable for reference and criticism at all times; but we cannot see how patents can be given, nor of what use they practically are after given. Virtually they are a dead letter. A mowing machine or a garden cultivator can not reproduce itself; but vines, trees, and plants do, and their produce belongs to their owner, and no one else. Hence we say, that we hope the patent business has at last been laid permanently on the shelf as a useless project."

Notwithstanding the seeming finality of the foregoing two years later appeared in the Gardeners' Mo. 13:22 (1871) "A note accompanying a bill providing for the protection of the rights of originators and discoverers of new and valuable fruits and plants." This note is followed by an editorial comment setting forth as objection to the proposed law that "there is no way to define a new plant or fruit so clearly that the officers of the Patent Office can judge by the record whether it is new or not and there would, we think, be no end of litigation."

In 1874 definite propositions for the plant patent were presented to the public by Jacob Moore, of Attica, N. Y., who drew up a bill for the protection of "the plant author". This bill was "designed to supply in part the deficiencies of a bill introduced in the legislature last winter for this purpose." Mr. Moore continued through many years to champion the cause. A decade later he again proposed the plant

system in a circular which is inserted under the heading "Legal control of new varieties" in L. H. Bailey's Annals of Horticulture for 1890. It claims for the originator of a valuable new fruit, vegetable, or ornamental plant "the exclusive privilege of giving it a name and the exclusive right to grow, disseminate and sell it" and proposes that "new varieties should be subjected to examination and trial by a competent committee, that protective letters might not be given for old sorts, worthless new ones, and those not distinct enough to be identified. It would be necessary to classify plants, in the statute protecting them, according to the purpose for which they are valued, and apply the protection accordingly; thus:

Class 1. Perennial plants valued for the seed or fruit.
Class 2. Plants valued for ornament.
Class 3. Vegetables, vegetable fruits, cereals, and other annuals valued as edible and marketable products."

In 1901 Mr. Moore presented a paper on the subject before the American Pomological Society.

In 1906 the question was again before Congress in an act relating to patents, in the interest of originators of horticultural products. Following this unsuccessful attempt we have found no record of further definite action until, some four years ago, prominent nurserymen and others interested in the subject began to bring it again to the public notice through horticultural journals and later presented it for the consideration of Congress.

Finally, in 1930, this campaign of the horticulturists which had been waged for 62 years and possibly longer, culminated in the passage by Congress of the "Act to provide for plant patents", which was signed by the President on May 23, 1930. This measure authorizes the issuance of a patent to "any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement thereof, or who has invented or discovered and asexually reproduced any distinct and new variety of plant other than a tuber propagated plant, not known or used by others in this country, before his invention or discovery thereof, and not patented or described in any printed publication in this or in any foreign country." It authorizes the President to direct the Secretary of Agriculture to furnish the Commissioner of Patents available information on matters relating to patents covered by the legislation, and to conduct research on special problems. It also provides that the Secretary of Agriculture may detail to the Commissioner of Patents such officers and employes of the Department of Agriculture as the Commissioner may request for the purpose of carrying out the act. No variety of plant introduced to the public prior to the approval of the measure is subject to the patent.

On December 18th, 1930, a bill (H. R. 15423) to provide for cereal patents was introduced and referred to the Committee on Patents. It did not, however, reach the stage of enactment during the past session of Congress.

The working of the plant patent law will no doubt be followed with interest by horticulturists of foreign countries. In vol. 1

(1919/20) of the English "Journal of pomology", edited by E. A. Bunyard, had appeared an article on "the patenting of new fruits" the introductory paragraph of which reads as follows:

"A strong movement has been started in this country and in France to pass a law which will give the raiser of a new plant exclusive rights in their propagation and sale of a period of years, so as to recompense him for the very considerable outlay which such work entails. At the Conference of the Pomological Society of France at Metz [Sept. 4, 1919] and at an International Conference held at Paris in September [1919] the question was warmly discussed, and opinion was almost unanimous in its favor."

In the Florists' Exchange for April 5, 1930 reference is made to a letter from Edward Laxton, of Laxton Brothers, Bedford, England, advising that he has been appointed Secretary of the Committee of the International Horticultural Federation (F.H.P.I.) created for the purpose of formulating some scheme by which raisers of new plants can be protected or given patent rights exactly as is the inventor of any useful machine or even the author of a book.

"Our idea", says Mr. Laxton, "is that the raiser should be able to register his plant, after is had been passed upon as new and distinct by a competent authority, and then should be able to license any person he might wish to distribute same, retaining for himself a royalty in the products for, say five years."

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What Congress has done for the literary man and the mechanic, that should it do for the farmer, the florist or the horticulturist, who gives to the world a new plant or a valuable fruit.

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Advocates an agricultural bureau at Washington where, on deposit of sufficient proof, originators of new fruits, flowers or grains may receive a certificate conferring sole rights in the propagation and sale of such articles for a period of years as in the case of patents.

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THE DISTINCTION BETWEEN "REFERENCE" AND "RESEARCH"

In a recent article on reference work in one of the library journals there appeared the following sentence: "The school child often attempts to put something over by getting the librarian to do his research work for him." This use of the word research is not infrequently met with in library literature. It is believed, however, that there is an important distinction between the words reference and research as applied to library work. This distinction is clearly set forth in the following paragraph from an unusually fine and helpful article on "The research library and the research librarian" by Hollis W. Hering, Librarian, Missionary Research Library, Union Theological Seminary, New York City, which appeared as the leading article in "Special Libraries" for January, 1931.

"To every one in charge of a collection of books, be it large or small, covering a wide range of subjects or very narrowly specialized, inevitably comes a variety of questions calling for the verification of some specific fact. While the answering of these may require an exasperating amount of time, the result is an isolated piece of definite information. These are distinctly reference questions. Research, on the other hand, has been defined as "diligent, protracted investigation, especially for the purpose of adding to human knowledge" and emphasis is always laid on uncovering hitherto little recognized relationships between facts. A comparative study, for instance, of the curricula in the rural schools of Africa, Korea, China, and the United States involves definite research."

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THE COUNTRY GENTLEMAN'S ONE HUNDREDTH ANNIVERSARY

With the March, 1931, issue, The Country Gentleman celebrates its one hundredth anniversary. The publishers have issued bound copies under the title "Historical Number, 1831-1931, The Country Gentleman." On the inside cover and the recto of the preliminary leaf, there is an interesting picture map of the United States in the year 1831 when the Country Gentleman first made its appearance as the Genesee Farmer, published at Rochester, N. Y., by Mr. Tucker. Among the interesting historical articles in this number are the following: "The First Hundred Years", by E. H. Taylor; "And Then Came Power: The Machine Age in Farming and the Mighty Changes it Has Brought", by Gove Hambridge; "Cyrus Hall McCormick", by Cyrus McCormick, Jr.; "The Men Who Remade Agriculture", by J. Sidney Cates.

OLD AMERICAN AGRICULTURAL JOURNALS AND AN OLD CONTROVERSY

In connection with the hundredth anniversary of the Country Gentleman and because of the increasing interest in old American agricultural periodicals it may be of interest to quote here some extracts dealing with the old controversy between the Country Gentleman and the New England Farmer as to which was the older. In the issue of the Country Gentleman for January 4, 1906, celebrating its seventy-fifth anniversary, appeared the following:

"We prefer to commemorate the seventh-fifth anniversary of the establishment of this paper by printing (beginning on p.25) a series of reviews, by the highest living authorities, of some of the salient features of the progress of American agriculture since 1830, and presenting the portraits of a score or more of the leaders of our agricultural thought, contributors to these columns - rather than by detailing at much length the history of the Country Gentleman itself. The reproductions that are given of the six different styles in which our first page has appeared, with the subjoined notes of explanation, give the outlines of the story of the paper. We may sum it up by saying that Luther Tucker started this weekly, then known as the Genesee Farmer, at Rochester, Jan. 1, 1831, three years before the establishment of the Cultivator at Albany; that he bought the latter paper and consolidated the two, Jan. 1, 1840; that he started the Country Gentleman under that name, Jan. 1, 1853, continuing the publication of both papers until Jan. 1, 1866 (having meanwhile taken his son into partnership), at which date the two periodicals were consolidated as 'The Cultivator & Country Gentleman,' which title was retained until Jan. 1, 1898, when "The Cultivator" part of the name was dropped. Not a single issue of the paper under either of its three names, 'The Genesee Farmer', 'The Cultivator' and 'The Country Gentleman,' has failed to appear on its regular date during the seventy-five years; and no change of ownership or of management has occurred except by direct inheritance following death, there having been only three men at the head of the enterprise, Luther Tucker and two of his sons. The present proprietors are a son and a grandson of the founder. If there are other American periodicals of any name or nature that have an equally continuous history in publication and in ownership for three-quarters of a century, we should very much like to know what they are.

"A few statements about other old agricultural periodicals in this country may be of interest. Four of them antedate the Genesee Farmer - The American Farmer, established by John S. Skinner at Baltimore, April 2, 1819, and lasting (though perhaps not without breaks) until ten or a dozen years ago; the Plowboy, Albany, June 5, 1819, which lived for twenty years or more; the New England Farmer, Boston, Aug. 1, 1822, which survived until about 1840; (The present New England Farmer has no connection with this paper, having been started eight years after the decease of the older journal of that name by different people who made no attempt at claiming any succession from the original); and the Southern Agriculturist, Charleston, J.D. Légare, 1828, believed to have lived five or six years. Then came the establishment of our own journal, in addition to which not more than ten agricultural periodicals of any kind can be named that were started before 1850 and have been published continuously ever since, viz: Maine Farmer, 1833; Boston Cultivator, 1839; Southern Planter, 1840; Massachusetts Plowman and Prairie Farmer, 1841; American Agriculturist, 1842; Southern Cultivator, 1843; Indiana Farmer, 1845; Rural World and Ohio Farmer, 1848. We suspect that this list is more than complete, believing that one or two of the papers named have not been issued quite continuously; but we give them the benefit of the doubt."

These statements of the publishers of the Country Gentleman did not go unchallenged, for in the January 13, 1906, issue of the New England farmer, appeared the following rejoinder:

"Our esteemed junior contemporary, The Country Gentleman, of Albany, has just celebrated the seventy-fifth anniversary of the birth of its grandparent, the old Rochester Genesee Farmer, and in consequence takes another opportunity to revive the thread-worn 'how-old-is-Ann' controversy regarding the oldest agricultural paper.

'A few statements about other old agricultural periodicals in this country,' it says, 'may be of interest. Four of them antedate the Genesee Farmer - the American Farmer, established by John S. Skinner at Baltimore, April 2, 1819, and lasting (though perhaps not without breaks) until ten or a dozen years ago; the Plowboy, Albany, June 5, 1819, which lived for twenty years or more; the New England Farmer, Boston, Aug. 1, 1822, which survived until about 1840.' In an explanatory foot note it adds: 'The present New England Farmer has no connection with this paper, having been started eight years after the decease of the older journal of that name by different people, who made no attempt at claiming any succession from the original.'

"The editors of the Country Gentleman have iterated and reiterated this mis-statement in regard to the New England Farmer so many times that they have doubtless come to believe that it is true. But it is NOT. We put special emphasis on the not.

"We have in our office complete sets of the original files of the New England Farmer from 1822 to 1906, as they were handed down to each succeeding publisher. These files show that the Farmer was published continuously from the date of its birth, August 3, 1822 until June 24, 1846; that on December 9, 1848, its publication was resumed under the new management, but with the same name and character. Since that date with the exception of a temporary suspension of five months in 1864, not an issue has been missed.

"Mr. R.P.Eaton, publisher of The Farmer during the fifties and sixties and fully conversant with its history covering both periods of suspension, kept this statement, 'Established 1822,' standing at the head of its columns, and its correctness was questioned by no one.

"The history of the New England Farmer from the date it was established in 1822 to the present time is an open book. It is not obscured in mystery. The paper has always carried the name, 'New England Farmer', on its title page and its right to the distinction of being the oldest agricultural periodical in the United States is unquestioned by all impartial, fair-minded persons.

"The New England Farmer can testify to the eminent respectability and superior quality of the Country Gentleman's ancestry, and congratulates its half-century-old contemporary on its continuous success and many evidences of prosperity. The elder Luther Tucker was perhaps the greatest agricultural editor and publisher of his day, and his sons and grandsons have inherited many of his excellent qualities, making a family record unequalled in the history of agricultural journalism." (1)

A few years later, in 1909, the controversy broke out again in connection with the Historical Sketch of American Agricultural Periodicals by Gilbert M. Tucker, which he prepared for Bailey's Cyclopaedia of American Agriculture. The note of the author which he appended to this sketch says that "an agricultural publisher who objected strongly to having the facts about his business put on record in the Cyclopaedia (though the facts are in no way discreditable) induced Professor Bailey to omit this article at the last minute, the author absolutely refusing to consent to changes that would have falsified history." Mr. Tucker therefore bought the plates of the publisher and published the nine-page article separately as a pamphlet under the title "American Agricultural Periodicals: An Historical Sketch", by Gilbert M. Tucker, Privately Printed, Albany, N. Y., 1909. The article on the subject, which appeared in Bailey's Cyclopaedia of Agriculture under the title "Current Agricultural Periodicals" was necessarily the same length as the article originally prepared by Mr. Tucker but was quite different in character. It contained only about a page and a half of historical matter, the remainder of the space being devoted to "a partial list of agricultural journals established before 1850." Neither of the lists included the Agricultural Museum (2), the little known Pioneer agricultural journal, though it preceded by nearly nine years the American Farmer, generally referred to as the first American agricultural journal, the first number of which was issued on April 2, 1819.

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(1) See "Agricultural Periodicals in the United States" by Allen D. Wilson. Thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts in Library Science in the Graduate School of the University of Illinois, 1930. (Typewritten.)

(2) See "The Agricultural Museum: An Early American Periodical" by Claribel R. Barnett, Agr. Hist. 2:99-102.

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BINDING QUERY

How many agricultural librarians leave the covers on the publications of the U. S. Department of Agriculture when binding them? Of those who would naturally discard the covers, how many retain them if information (as to cooperation, etc.) is printed on the reverse side of the cover?

These are questions that the Department of Agriculture often debates when planning the make-up of the cover and first page of its publications. In commercial publications the inside cover page is a preferred advertising space; therefore, to some it seems a strategic place in which to make acknowledgment for aid and cooperation. Moreover, a boxed statement here is more attractive than is a blank page, they reason, and attractive type can be used. An example of such a statement is found in Technical Bulletin 217 of the U. S. Department of Agriculture.

Others urge that these covers are usually discarded when the bulletins are bound and information on them is thus destroyed. They prefer to leave this space blank and to place all supplementary information in a footnote on the first page, in small type.

Will you tell us your practice when binding Department publications? A coupon for use in replying is enclosed. Please address your reply to the Librarian, U. S. Department of Agriculture, Washington, D. C.

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A SUGGESTION FOR FARMERS' BULLETINS

By William W. Shirley, Librarian, Hamilton Smith Library,
University of New Hampshire.

How can we arrange our Farmers' Bulletins so that we can always give out the latest revision of any individual bulletin? Our practice, based on the treatment of pamphlets in the New York Public Library, is as follows:

We buy from a supply house Manilla Rope, or "M.R." as we call it. This is a reddish-brown cover stock which comes in sheets 24 x 36. These sheets are cut to the height of the bulletins. We then take the bulletins in their numerical order in groups of 50 and wrap them in these strips of "M.R.". The wrapping is then cut so that it overlaps about two inches. The "M.R." is creased with our fingers on the edges of the bulletins. The bulletins are removed, and the finger creases gone over with a heavier instrument as a scissors. Now the "M.R." will fit the bulletins closely. We mark the "M.R." as we would a rebacked book and proceed to tie it up.

A fine grade of cotton string is used, which slips easily and does not have splinters. This is knotted. The knotted end is now looped around the width of the bulletins and tied with a simple knot. This can be pulled tight and will be held by the first knot. The string is now looped around the length of the bulletins and tied with a slip knot that can be untied by pulling the loose end.

Thus we have our Farmers' Bulletins on the shelves, looking like books and as easy to care for. At the same time, we can always furnish the latest revisions. The current numbers are kept in an ordinary pamphlet box, marked the same, until 50 accumulate.

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Vegetable Crops. By Homer C. Thompson, Professor of Vegetable Crops. New York State College of Agriculture, Cornell University. 2d ed. 550 p. New York, McGraw-Hill Book Company, 1931.

The first edition was issued in 1923.

"The main purpose of this book is that of acquainting the student with the application of those scientific facts and principles that are involved in the successful production of vegetables and the successful handling of the products. Attempt has been made to bring to bear the results of experimental and research work to the solution of problems in production and handling." (Preface to 2d edition)

Report of the Royal Commission Investigating the Apple Industry of the Province of Nova Scotia. 71 p. Halifax, N. S., Minister of Public Works and Mines, 1930.

Supplementary Report by the Royal Commission on the Apple Industry of Nova Scotia. 52 p. Halifax, N. S., Minister of Public Works and Mines, September, 1930.

Mimeographed.

What Every Rose-Grower Should Know. Prepared for the American Rose Society by its Editors. 79 p. il. Harrisburg, Pa., The American Rose Society, 1931.

"The ambition of the American Rose Society to increase the general interest in the cultivation and improve the standard of excellence of the rose for all people is the basis for the issue of this little book."

Rainbow Fragments. A garden book of the iris, with illustrations in full color. By J. Marion Shull. 317 p. Garden City, N.Y., Doubleday, Doran & Company, 1931.

This handbook takes up every phase and problem of selection, growing and breeding.

Sage of the Desert and Other Cacti. Studies of that fantastic clan, the cactus of the desert, and other interesting and peculiar desert growths. By Frances Bonker and Dean John James Thornber, Professor of Botany and Former Dean of the College of Agriculture, University of Arizona. Introduction by Harold Bell Wright. 108 p. il. Boston, The Stratford Company, 1930.

"In this book some of the weird, fantastic growths of the American Desert have been pictured in a popular way, and with an accurate scientific foundation of fact and detail. It is the first time that many of the odd, grotesque plants of our wastes of desert land have been described, either in a popular or scientific treatise." (Publishers)

Landscaping the Small Home. By Edward W. Oliver. 146 p. il. New York, A. T. DeLaMare Company, Inc., 1931.

"Written to help solve the problems of the small property owner; to teach him how to plan and execute a planting economically, correctly, and of the type that will afford increasing enjoyment in the years to come."

Types and Market Classes of Live Stock. By H. W. Vaughan, Professor of Animal Husbandry, Montana State College. 3d rev., 13th ed. 574 p. Columbus, Ohio, R. G. Adams & Company, 1930.

In this revised edition part of the text matter has been rewritten, the live-stock statistics contained in the book have been brought down to date, and a number of new illustrations have been added.

Range Sheep and Wool in the Seventeen Western States. Part I. Range sheep. By Fred S. Hultz, Head of Animal Husbandry Department and Director of Publicity, University of Wyoming. Part II. By John A Hill, Wool Specialist and Dean of the College of Agriculture, University of Wyoming. 374 p. il. New York, John Wiley & Sons, 1931.

"In the preparation of this volume the authors have endeavored to present a panoramic view of the range sheep and wool industry. Discussions of management practices are included."

Sheep. By Archer B. Gilfillan. 272 p. il. Boston, Little, Brown and Company, 1930.

The author, a graduate of the University of Pennsylvania, has been tending his flocks on the South Dakota range for over ten years. This book is an account of his varied experiences.

Edible Fish-Meal. Its composition and value with instructions for its use in feeding cattle, swine, sheep and poultry. Edited by Rodney DeLisle, Department of Agriculture. 80 p. Victoria, B. C., Fisheries Department, 1930.

"Gives a review of the researches, experiments, and results in many countries in the feeding of edible fish-meal to domestic live-stock and poultry and is written not only for the farmer who desires to improve his live stock through better feeding methods, but also for those engaged in the production of fish-meal."

Practical Poultry Production. By Harry M. Lamon, President, The National Poultry Institute, and Jos. Wm. Kinghorne, Secretary-Treasurer, The National Poultry Institute. Rev. ed. 438 p. St. Paul, Minn., Webb Book Publishing Company, 1930.

"Thoroughly revised and enlarged to include the latest data, scientific facts, and methods that have been most successful."

The first edition was published in 1920.

How to Select the Laying Hen. By Harry M. Lamon, President, and Jos. Wm. Kinghorne, Secretary-Treasurer, National Poultry Institute. 124 p. il. New York, Orange Judd Publishing Co., 1931.

Battery Brooding. A complete exposition of the important facts concerning the successful operation and handling of the various types of battery brooders. By Milton H. Arndt, Sales Manager, Battery Brooding Division, Kerr Chickeries, Inc., Frenchtown, N.H. 323 p. il. New York, Orange Judd Publishing Co., 1931.

"Written to meet the widespread, increasing demand for detailed instruction in handling battery brooders."

Riding the Chuck Line. A forester in peace and war. By Theodore S. Woolsey, 116 p. New Haven, Conn., The Author, 1930.

The following is taken from the author's preface: "The main purpose of this book is to give the picture of a forester's life during the thirty years when scientific forestry was winning its place. The West that some of us knew is passing into tradition and I have tried to preserve the flavor. The yarns which follow come mostly from my own experience. The development of the Forest Service is an important chapter in our national history; our children will recognize this even more than we do. I give the personal side of the story as the men in the field saw it. I have also tried to sketch methods of forest management, as I have been able to observe them here and abroad."

The Social Management of American Forests. By Robert Marshall. 35 p. New York, League for Industrial Democracy, 1930.

One of a series undertaken by the League for Industrial Democracy to develop a constructive pamphlet literature on the movement toward social ownership in industry. The author has made the forestry problem his major interest during the last few years.

A History of Minnesota. By William Watts Folwell. Vol. IV. 575 p. il. St. Paul, Minnesota Historical Society, 1930.

Part II of this volume is entitled "The University of Minnesota" and covers the Minnesota Plan of Organization, the High School Board, the Agricultural College of Minnesota, the School of Agriculture, the Double University Land Grant, the Coliseum, the Mayo Foundation, the Eustis Trust, and the Revolution of 1928.

The Economic Life of Soviet Russia. By Calvin B. Hoover, Professor of Economics, Duke University. 381 p. New York, The Macmillan Company, 1931.

"During 1929 and the early part of 1930 Professor Hoover traveled throughout Russia as holder of a Fellowship of the Social Science Research Council of the United States, studying intensively the economic system of that country. In this volume, he describes intimately the policies of the Soviets and the results which they bear in actual life." (Publishers) One chapter is devoted to agriculture.

A History of Entomology. By E. O. Essig, Professor of Entomology, University of California. 1029 p. il. New York, The Macmillan Co., 1931.

The book is western in viewpoint and is devoted principally to the history of entomology in California. A chapter on biography includes sketches of (1) some of the great founders of entomology whose influences are world-wide, (2) the father of entomology in North America who established the science in this country and who described many western insects, and (3) the pioneer collectors, investigators, and teachers, who at some time worked within the confines of California, or described material taken there. There is also a chronological table showing the development and progress of entomology in relation to history and other sciences.

The Economic Life of the Ancient World. By Jules Toutain, Director d'Études at the École des Hautes Etudes at the Sorbonne. 361 p. London, Kegan Paul, Trench, Trubner & Co., Ltd.; New York, Alfred A. Knopf, 1930.

Gives a full account of agriculture, industry, trade and property in the ancient Mediterranean world. "The author takes us from the barter and household crafts of Homeric times to the elaborate business which developed after Alexander's conquests had introduced the Greeks to the products and practices of the East. He traces the economic life of the West from Palaeolithic man to Etruria, early Rome, and Carthage. Finally, he shows East and West united under the Roman Peace; goods coming in from Britain, China, and Equatorial Africa; provinces humming with activity; roads, rivers and seas thronged with transport; trade guilds and shipping companies; mines in Spain potteries in Gaul, farms in Africa." (Publishers)

Empire Stock-Taking. By L. St. Clare Grondona. 366 p. London, Simpkin Marshall, Ltd., 1930.

This volume which is intended to set down the outstanding facts of Imperial production and Imperial demand, is in three parts as follows: Part I. Foodstuffs, tobacco, and raw materials; Part II. The needs of the overseas empire; Part III. General summary of the trade and tariff system of the United Kingdom. A similar volume is to be published each year.

Principles of Tropical Agriculture. By H. A. Tempany, Director of Agriculture, and G. E. Mann, Instructor, Malay Agricultural Officers, Straits Settlements and Federated Malay States. 328 p. Kuala Lumpur, F.M.S., The Incorporated Society of Planters, Malaya, 1930.

Written to answer the need for a "work in which the general principles underlying agricultural operations in the tropics are first of all described in some detail, followed by a discussion of the methods adopted in agricultural practice, without reference to any particular crop."

Reports of the College Traveling Scholars in Agriculture. No. 1. Systems of dairy farming. By W. E. Cole. 378 p. London, College of Estate Management, 1930. (Printed for private circulation)

In order to encourage the study of agricultural methods in England and abroad, the College of Estate Management awards annually a traveling scholarship in agriculture open to graduates of any British University. This volume is the report of the first scholar appointed by the Governors of the College.

The Swedish Central Agricultural Experiment Station. 56 p. Stockholm, Isaac Marcus Boktryckeri-Aktiebolag, 1930.

Contents: Historical sketch; Organization; Resources and arrangements; Working problems and results; Fertilizer and soil tillage trials; Experiments in plant cultivation, etc.; Chemical and physical experiments; Livestock experiments; Dairying experiments; Botanical experiments; Entomological experiments; Bacteriological experiments.

The Chemical Investigation of Plants. By Dr. L. Rosenthaler, Lecturer in the University of Berne. Authorized translation of the third, improved and enlarged German edition, by Sudhamoy Ghosh, Professor of Chemistry, School of Tropical Medicine and Hygiene, Calcutta. 197 p. London, G. Bell & Sons, Ltd., 1930.

This book provides the beginner "with the fundamental principles involved in the systematic chemical investigation of a plant and deals with the general methods followed for the isolation and purification of the various classes of chemical compounds met with in the vegetable kingdom. The book is thus a very useful guide not only for the pharmaceutical or the agricultural chemists but also for the variou research workers engaged in the study of plant products from the medium, pharmacological or purely scientific points of view." (Preface)

Hardy and Half-Hardy Plants. Illustrations and descriptions of beautiful and interesting plants suitable for outdoor culture in the British Isles. Volume I. 252 p. Hampton Wick, Middlesex, Eng., A. W. Darnell, 1930.

In this series, each volume (which consists of twelve parts issued monthly, with general index and the most frequently used synonyms) will contain not less than 252 life size reproductions by lithography, of accurate drawings from living plants or if these are unobtainable, from authentic herbarium specimens, representing the plants in characteristic attitudes, showing clearly details of form and structure that it is impossible to show clearly in reproductions from photographs.

The Plant Introductions of Reginald Farrer. Edited by E. H. M. Cox. 113 p. il. London, New Flora and Silva Ltd., 1930.

Catalogue of Forest Trees, Fruit Trees, Hardy Evergreen and Deciduous Ornamental Trees and Shrubs, Perennial Herbaceous Plants, Green House and Stove Plants, Culinary, Officinal and Agricultural Seeds and Plants, Annual, Biennial and Perennial Flower Seeds, Tree Seeds and Garden Utensils: Sold by William Falla and Co., Nursery & Seedsmen, Gateshead, near Newcastle-on-Tyne. 63 p. Newcastle, S. Hodgson.

This is a photographic reproduction of the original edition which was issued more than a century ago. The reproduction was made by the firm of Samuel Finney & Co., Seed Merchants, Newcastle upon Tyne, who succeeded to the business of William Falla & Co. in the early part of the last century. The catalogue is interesting in that it shows the varieties which were apparently popular at that time and there are also found in it descriptions which are current today. The prices, too, where given, are of interest as indicating the difference in the standard of money values.

Wissenchaft und Landwirtschaft. Festschrift zum 50 Jährigen bestehen der Landwirtschaftlichen Hochschule, Berlin. 193 p. Berlin, Verlag von Paul Parey, 1931.

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Le Sol. Agricole & Forestier. Traité d'Agrologie. Par R. Meurice, Professeur a l'Institut Agronomique de Gembloux. 276 p. Gembloux, Jules Duculot, 1931.

Microbiologie Appliquée à la Fertilisation du Sol. Par Edmond Kayser, Ingenieur Agronome, Membre de l'Académie d'Agriculture de France. 364 p. il. Paris, J. B. Baillière et Fils, 1930.

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Culture des Porte-Graines. Racines Fourragères plantes potagères et fleurs. Par G. Marle, Ingenieur Agronome, Directeur Technique de l'Ecole Secondaire d'Agriculture des Ponts-de-Ce. 384 p. il. Paris, J. B. Baillière et Fils, 1930.

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SELECTED LIST OF MIMEOGRAPHED PUBLICATIONS
of the U. S. Department of Agriculture
issued during January, 1931 exclusive of current issues of serials.*

Bureau of Agricultural Economics

The history of agriculture in the United States: a brief list of annotated references. Comp. by Everett E. Edwards. 8 p.

Marketing Louisiana strawberries. Summary of 1930 season. By J. P. Klein. 23 p. (Issued by Division of fruits and vegetables)

Poultry and eggs outlook charts, with explanations.

Sheep, lambs and wool outlook charts, with explanations.

Bureau of Chemistry and Soils

Plants reputed to have insecticial value: plants found in India. By R. C. Roark, and G. L. Keenan. 22 p. (Issued by Insecticide division)

Solid carbon dioxide. Selected references. Comp. by V. A. Pease. 4 p. (Issued by Food research division)

Office of Experiment Stations

Opportunities for agricultural engineering research in the southeastern states. By R. W. Trullinger. 8 p.

Extension Service

Effectiveness of home garden extension; a study of 271 farm homes in Union, Sumter and Orangeburg counties, South Carolina, 1930. By M. C. Wilson and Lonny I. Landrum, 25 p. (Issued by Office of cooperative extension work) Extension service circular 145.

Bureau of Home Economics

Suggestions for judging textiles. 5 p. (Issued by Textiles and clothing division)

Bureau of Plant Industry

Kentucky bluegrass (Poa pratensis). 3 p. (issued by Office of forage crops and diseases)

Nut grass. By W. M. Talbot. 3 p. (issued by Office of botany)

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*For a list of the principal series issues regularly, see v.4, no. 102, p. 347.

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(HOPPER)

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AGRICULTURAL LIBRARY NOTES

Vol. 6 March-April, 1931 No. 3-4

GEORGE WASHINGTON, FARMER

A List of Annotated References and a Brief Introduction

By Everett E. Edwards, Associate Agricultural Economist,
Bureau of Agricultural Economics, U. S. Department of Agriculture

Not even the occasion of the bicentenary of George Washington's birth is necessary as a justification for a list of the printed materials on Washington as a farmer. The interest in the subject is continuous.

Washington loved farming. Having settled at Mount Vernon in 1759, each time he was called to his country's service he left his farming activities with greater reluctance. During the long and trying years of the American Revolution and also later during his presidency he constantly looked forward to the time when he could lay down his public duties and retire to Mount Vernon and practice farming again.

During his lifetime he acquired some 51,000 acres of land in what is now seven States. However, his chief interest was in the 8,000 acres, divided into five farms and woodlands, which he grouped together in his Mount Vernon estate. In the early 1760's, he, like other Virginia planters, specialized in tobacco. He soon realized that concentrating on a single crop destroyed the fertility of his land. He, therefore, turned his attention to other crops, wheat being the main substitute for tobacco.

Washington was interested in improving the methods used on his farms. In doing this, his task was not easy. Today any farmer in America can get technical information and advice by writing the United States Department of Agriculture, the agricultural experiment station or agricultural college of his State, the local county agent or one of the many farm journals. Washington had no such aids. Few in America at that time were interested in improved methods. He had to get the facts by experimenting and by corresponding with a small group in England, led by Arthur Young and John Sinclair, who were making careful studies and printing their results. Extensive notes among Washington's papers show how carefully he read the writings of these men.

Much of his time, while actually in residence at Mount Vernon, was devoted to experiments by which he hoped to discover better agricultural methods. It would take a book of considerable size to cover these experiments in detail. As early as 1760, he sowed lucerne, the plant we now call alfalfa. He was greatly interested in clover and grasses because he hoped they could be used to conserve the thin soil of his land along the Potomac. Further, with them he could be assured of a supply of winter feed. If he had that, he could hope to improve his livestock. He also made expensive experiments with various fertilizers. He used marl and muck from the bottom of the Potomac on some of his fields. He imported improved plows and made what he called a barrel plow; we would call it a seed drill. He treated his seed wheat with

brine and alum in the hope of preventing smut and tried out methods of protecting his grain fields from the Hessian fly. By careful seed selection, Washington developed a very good strain of wheat. In commenting on the flour made in his mills for shipment to plantations in the West Indies, he stated that his was as good in quality as any produced in America.

Washington's observations in the northern colonies while leading the army during the Revolution turned his attention to the desirability of keeping more and better livestock. He was probably the first in America to raise mules. In 1785 the King of Spain sent him two jacks and two jennies. One jack died on the way, but the other arrived safely and was appropriately named "Royal Gift." This animal was later taken on a tour of the Southern States. In 1786 General Lafayette sent Washington a jack and two jennies of Malta breed.

The importance of wool as a textile material made Washington interested in sheep. Before he became President he improved his flock by selection and care until he was getting 5-1/4 pounds as the average clip. Those of other farmers seldom averaged 2 pounds. In 1788 he raised nearly 200 lambs. He found the restrictions on the exportation of breeding animals from the mother country a decided drawback.

The completeness of Washington's records of his farming activities indicates the way he went about them. During his years at Mount Vernon he kept a diary. In it he recorded the happenings of the day, his agricultural and other experiments, a record of the people who came to visit him, and a detailed account of the weather. With this last information he hoped to draw conclusions as to the best time for planting the various crops. He also kept a cash memorandum book, charge account books, mill books, and a special book for the accounts of the estate of his stepchildren. When away from home he required his manager to send him detailed weekly reports. These contained daily weather data, the work done on each farm, what each person was doing, the losses and increases in stock, and other similar matters. In return he wrote weekly letters containing inquiries, directions, and corrections.

Washington had a vision of an empire of farms west of the Alleghanies and he led in the efforts to improve transportation facilities between the headwaters of the Potomac River and those of the Ohio in order that the farmers who settled in the west could have a market for their crops.

In his last annual message to Congress he recommended the creation of a Board of Agriculture to collect and distribute information on improved methods of agriculture and to offer prizes and bounties to encourage what he called the "spirit of discovery and improvement." For an executive department which approximated the board he proposed, the nation had to wait many years.

During the past decade we have begun the custom of designating our best farmers as master farmers. Had the practice existed in Washington's day he would have been one of few in all America entitled to the distinction. Perhaps it is not going beyond the facts to say that he was our first master farmer.

Washington's Agricultural Writings

Brooke, Walter Edwin, editor. The Agricultural Papers of George Washington. Boston, R. G. Badger [1919] 145 p.

This collection includes letters from Washington to various persons on agricultural subjects, extracts from his diaries, farm reports, etc., compiled by Walter Edwin Brooke, late assistant professor of economics and sociology, Agricultural College of Utah, Logan, Utah, "for the sole purpose of elevating and dignifying agriculture by showing the intelligent interest and application of what were in George Washington's time only the crude principles of what is now modern and scientific agriculture." A map of Washington's farms at Mount Vernon faces p.81.

Conway, Moncure Daniel, editor. George Washington and Mount Vernon; A Collection of Washington's Unpublished Agricultural and Personal Letters... With Historical and Genealogical Introduction. Brooklyn, N. Y., Long Island Hist. Soc., 1889. 352 p., illus. (Long Island Hist. Soc. Mem., v.4)

A summary and review of this volume is given under the title, Farmer Washington, in Nation, 50: 300-301 (April 10, 1890).

Information and excerpts from letters in the possession of the Long Island Historical Society are given in George Hannah's "Washington's Agricultural Letters," in Old and New, 5: 224-227 (February, 1872). The letters used in this article are Washington's correspondence with William Pearce, the superintendent of his estate at Mount Vernon from August 26, 1793, to May 6, 1798.

Fitzpatrick, John Clement, editor. The Diaries of George Washington, 1748-1799. Boston and New York, Houghton Mifflin Co., 1925. 4v.,map.

Contents.-v. 1, 1748-1770; v. 2, 1771-1785; v.3, 1786-1788; v. 4, 1789-1799.

For material on agriculture in these volumes, consult the index in volume 4 under such headings as the following: apple orchard; apple pumice sowed; apple trees; apples; apricot trees; ash trees; asparagus; aspen trees; asses, jack; barley; barn; barrel sowing; barrel, or barrel plow; barrel plow planter; Bartram, William; beans; Bloxam, James; Bordley, Beale; Botanical Garden Mount Vernon; boxwood trees; buckwheat; Bullskin plantation; cabbages; Canal, Potomac Company; carrots; cattle; corn, etc.

Ford, Worthington Chauncey, editor. Washington as an Employer and Importer of Labor. Brooklyn, N. Y., Privately printed, 1889. 78 p.

Five hundred copies printed.

Contents.- Introductory Note, p. 5-23; Contracts, Agreements, etc., p. 25-46; Importing Palatines, 1774, p. 47-73; Advertisement of Runaway Servants, p. 74-75; Form of Indenture or Convenant for Servants, p. 75-78.

See also Dr. Ford's article entitled "Washington as an Employer of Labor", in Nation, 49: 227-228 (Sept. 19, 1889).

Washington's Agricultural Writings (Cont'd)

Ford, Worthington Chauncey, editor. Wills of George Washington and His Immediate Ancestors. Brooklyn, N. Y., Historical Printing Club, 1891. 210 p.

250 copies printed.

Ford, Worthington Chauncey, editor. The Writings of George Washington. New York and London, G. P. Putnam's Sons, 1889-1893. 14 v.

Consult the index for references to material on Washington as a farmer.

In this connection it is pertinent to refer to the edition of the writings of George Washington now being edited by John Clement Fitzpatrick and printed by the United States Government Printing Office, on the occasion of the bicentennial of Washington's birth.

Washington, George. Fac Similes of Letters from His Excellency George Washington, President of the United States of America, to Sir John Sinclair, Bart., M. P., On Agricultural and Other Interesting Topics; Engraved from the Original Letters, So As To Be an Exact Fac Simile of the Hand-Writing of that Celebrated Character. Washington, F. Knight, 1844. 72 p., facsims.

Includes facsimiles of eight letters, dated from October 20, 1792, to November 6, 1797.

1st edition, London, printed by W. Bulmer and Co., and sold by G. and W. Nicol, 1800, published under the title, Letters from His Excellency George Washington, president of the United States of America, to Sir John Sinclair, Bart., M. P., on Agricultural, and Other Interesting Topics.

Washington, George. George Washington as a Housekeeper, With Glimpses of His Domestic Arrangements, Dining, Company, etc. New York, J. F. Sabin, 1924. 8 l.

Instructions to "Mr. Germain," Washington's steward; signed Go Washington, Philadelphia, June 1, 1794.

"This is from a letterpress copy of an original - so far as known not extant. Some letters blurred or indistinct have been worked out by Mr. J. C. Fitzpatrick of the Ms Division of the Library of Congress ..."

Washington, George. Letters and Recollections of George Washington. Being letters to Tobias Lear and others between 1790 and 1799, showing the first American in the management of his estate and domestic affairs. With a diary of Washington's last days, kept by Mr. Lear. Illustrated from rare old portraits, photographs and engravings. New York, Doubleday, Page & Co., 1906. 289 p., illus.

Introduction signed by Louisa Lear Eyre.

The letters to Lear were privately printed, Rochester, 1905, under the title, Letters from George Washington to Tobias Lear.

The volume is summarized in Walter L. Fleming's "Washington as Housekeeper and Farmer," in Dial, 41: 237-238 (Oct. 16, 1906)

Washington's Agricultural Writings (Cont'd)

Washington, George. Letters from George Washington to Tobias Lear. With an appendix containing miscellaneous Washington letters and documents; reprinted from the originals in the collection of Mr. William K. Bixby, of St. Louis, Mo. With introduction and notes. Rochester, N. Y., [Genesee Press], 1905. 102 p., illus.

Three hundred copies printed.

Introduction signed by William H. Samson.

Washington, George. Letters from His Excellency George Washington, to Arthur Young, Esq., F. R. S., and Sir John Sinclair, Bart., M. P., Containing an Account of His Husbandry, with His Opinions on Various Questions in Agriculture; and Many Particulars of the Rural Economy of the United States. Alexandria, Va. Printed by, Cottom and Stewart, and sold at their bookstores in Alexandria and Fredericksburg, 1803. 128 p.

The letters are dated from August 5, 1786, to November 6, 1797.

Also a London edition in 1801, sold by W. J. and J. Richardson.

Washington, George. Letters of George Washington Bearing on the Negro. Jour. Negro. Hist., 2 : 411-422 (October, 1917).

Washington, George. Letters on Agriculture from His Excellency, George Washington, President of the United States, to Arthur Young, Esq., F. R. S., and Sir John Sinclair, Bart., M. P., With Statistical Tables and Remarks, by Thomas Jefferson, Richard Peters, and Other Gentlemen, on the Economy and Management of Farms in the United States. Edited by Franklin Knight. Washington, The editor; Philadelphia, W. S. Martien; [etc.] 1847. 198 p., illus., map. (Half-title: Farmers' Souvenir. Washington's Agricultural Correspondence.)

Reviewed by Andrew Jackson Downing in his Rural Essays (New York, Leavitt & Allen, 1854). p. 427-431.

Washington, George. Washington on Agriculture. Mag. Amer. Hist., 21: 330-338 (April, 1889).

Eight letters from George Washington to Sir John Sinclair during 1792-1797, copies from the originals in the British Museum by William Henry Smith, give information on what Washington said about woodland, fallow fields, domestic animals, and methods of farming.

Washington, George. Washington's Agricultural Notes. Amer. Almanac, 1830: 99-114.

"We have selected a few particulars from his manuscript papers, which, at the same time they illustrate his agricultural habits, may in part serve as practical hints, or salutary maxims, to farmers in general."

Material on the following topics is included: 1, Directions to the manager of his farms in the neighborhood of Mount Vernon given in December, 1799, a few days before Washington's death; 2, Particular directions for cultivating the crops on the river farm for the year 1800; 3, Washington's plan for rotation of crops as illustrated by four tables which apply to one farm of 525 acres which was divided into seven fields; 4, Extract from the agricultural journal for April, 1786, in which Washington kept from day to day the principal operations on his farms, the state of vegetation, and other particulars.

Secondary References

Braunton, E. George Washington - A Real Farmer. Calif. Cult., 70:219 (Feb. 25, 1928).
A summary of Washington's activities as a farmer, based on Paul Leland Haworth's George Washington; Farmer.

Carter, Major-General William Harding. General George Washington and His Horses. Breeder's Gaz., 78: 1154-1155, 1223, 1230 (Dec. 2, 1930)
The four illustrations show the following: the coach frequently used by Washington and Mrs. Washington while residing in Philadelphia, then owned by Samuel Hare Powell, mayor of Philadelphia, and now preserved at Mount Vernon; Washington on horseback receiving a salute on the field at Trenton; the rear or court view of Mount Vernon; the stable.

Craig, Evelyn Martha. Early Days along the Potomac; A History of George Washington's River Farm. Daughters Amer. Rev. Mag., 49: 246-248. (October, 1916).

Farmer of Mount Vernon. Wallaces' Farmer, 44: 474 (Feb. 21, 1919).
This two-column sketch gives the story of Washington's saving his mill from a flood, tells about his land acquisitions, his interest in improved implements and crop rotation, his experiments with fertilizers, mules, new breeds of live-stock, and his realization that American farmers failed to manage properly.

Farming Through the Ages; George Washington of Mt. Vernon. Prairie Farmer, 101 (12): 1, 7, 27 (March 23, 1929).
A summary of the facts concerning Washington as an agriculturist. The illustrations include the following: reproduction of picture of Washington looking over the progress of field work; the seed house; the mansion house; Washington in the garden; reproduction of Washington's drawing of his "farm of Mount Vernon."

Ford, Paul Leicester. The True George Washington. Philadelphia, J. B. Lippincott Co., 1896. 319 p., illus.
See especially ch. 5, Farmer and Proprietor, p. 112-137; and ch. 6, Master and Employer, p. 138-162.

Ford, Worthington Chauncey. George Washington, New York, Charles Scribner's Sons, 1900. 2v., illus.
See especially ch. 2, and ch. 7.

Galbreath, C. B. George Washington. Natl. Stockman and Farmer, 40: 1224-1225 (Feb. 17, 1917).

Gilmore, John W. The Agriculture of George Washington. Pacific Rural Press, 107: 214 (Feb. 16, 1924).

Harrison, John P. Washington as a Farmer. Ohio State Bd. Agr. Ann. Rpt. 1889: 428.- 436.
This paper was read before the Mulberry Farmers' Institute.

Secondary References (Cont'd)

Haworth, Paul Leland. George Washington, Country Gentleman; Being an Account of His Home Life and Agricultural Activities. With many illustrations, facsimiles of private papers, and a map of Washington's estate drawn by himself. Indianapolis, Bobbs-Merrill Co., [1925.] 336 p., illus.

Published in 1915 under the title, George Washington; Farmer.

Reviewed by G. U. E. in A mer. Hist. Rev., 21: 858-859 (July, 1916).

The chapter titles are: 1, A Man in Love with the Soil; 2, Building an Estate; 3, Virginia Agriculture in Washington's Day; 4, Washington's Problem; 5, The Student of Agriculture; 6, A Farmer's Records and Other Papers; 7, Agricultural Operations and Experiments Before the Revolution; 8, Conserving the Soil; 9, The Stockman; 10, The Horticulturist and Landscape Gardener; 11, White Servants and Overseers; 12, Black Slaves; 13, The Farmer's Wife; 14, A Farmer's Amusements; 15, A Critical Visitor at Mount Vernon; 16, Profit and Loss; 17, Odds and Ends; 18, The Vale of Sunset.

Leaveritt, E. T. George Washington and Power Farming; His Efforts were to Reduce His Labor Expense through Utilization of more Power. Farm and Ranch, 49 (8): 2, 14 (Feb. 22, 1930).

This article also appears with the title Was Also First in Farming in Colonies, in Maryland Farmer, 14 (1): 4,11 (Feb. 15, 1930).

Also in Calif. Cult., 74:187 (Feb. 15, 1930), with the title, George Washington and Power Farming.

Matteson, David M. Washington the Farmer. Washington, D.C., George Washington Bicentennial Commission, 1931. 31 p., illus. (Honor to George Washington Series, edited by Albert Bushnell Hart. Pamphlet 4).

Selected authorities, p. 30-31.

In Part 1, Land and Crops and Stock, the subject is considered under the following captions: interest in farming; wasteful farming in Virginia; Washington's scientific farming; relation of crops; wheat farming; reaping wheat; raising grain; invention of a drill plow; agricultural experiments; raising stock; sheep raising.

In Part 2, Organization and Labor, the captions are as follows: The English system; Manager Bloxham; overseers and slaves; modern farming methods; difficulties of improvement; interest in shrubbery; continuing interest.

Part 3, Washington's Scientific Farm Methods, p. 15-29, consists of excerpts from Washington's writings, compiled by Albert Bushnell Hart.

See also other pamphlets of this series, especially the one entitled "Washington Proprietor of Mount Vernon," announced as no. 9.

McMillen, Wheeler. Geo. Washington as a Farmer; Sidelights on his Farming Operations. Successful Farming, 19 (4): 26, 125 (April, 1930).

A careful, brief statement of certain sidelights on Washington as an agriculturist. There are four illustrations.

Secondary References (Cont'd)

[Mortimer, G. B.] George Washington as a Farmer. Hoard's Dairyman, 59: 346,350 (Feb. 27, 1920).

The article, printed on the occasion of the appearance of Walter Edwin Brooke's The Agricultural Papers of George Washington, is in the Hoard's Dairyman Juniors section and consists of extracts from Washington's papers which show how carefully he managed his agricultural affairs. The extracts are from the letter to James Anderson, manager of his farms, dated December 10, 1799, which included directions concerning crops for the River Farm, and its operation for the year 1800.

Parkinson, Richard. George Washington; Statement of Richard Parkinson, Lincolnshire Farmer. Baltimore, Lord Baltimore Press, 1909. 38 p.

The preface is signed by Alfred J. Morrison.

Extracts from the author's A Tour in America in 1798, 1799 and 1800; Exhibiting Sketches of Society and Manners and a Particular Account of the American System of Agriculture, with its Recent Improvements (London, 1805), v. 1, p. 1-5, 37-63, 78-79, 160; v. 2, p. 425-441, 611, 612.

Richard Parkinson came to America to supervise Washington's River Farm.

Perry, F. E. George Washington, Farmer. Breeder's Gaz., 75 (8): 406 (Feb. 20, 1919).

Peterson, Martin, and Marvin Grim. How Are the Crops at Mt. Vernon? Washington Knew the Answer; His Diaries Show How Carefully He Farmed. Wallaces' Farmer, 53, 297 (Feb. 24, 1928).

A rough outline of a year at Mount Vernon by means of excerpts from Washington's diaries. Also excerpts showing Washington's opinion of the situation of Mount Vernon, his observations on a threshing machine, together with his characteristics as an agriculturist. An illustration shows the mansion house of Mount Vernon.

Sanders, Alvin H. Farms of the Famous; George Washington. New Breeder's Gaz., 92 (29): 10, 19, 21 (November, 1927).

A satisfactory brief account. Also available under the title, George Washington As A Farmer, in Live Stock Jour., 106: 522 (Nov. 25, 1927)

Sanford, Albert Hart. The story of Agriculture in the United States. Boston, New York, [etc.], D. C. Heath & Co., 1916. 394 p., illus.

See ch. 8, George Washington - Farmer, p. 76-91.

Schmidt, Louis Bernard. The Farmer of Mt. Vernon; George Washington as Business Man and Farmer. Wallaces' Farmer, 51: 274, 276 (Feb. 19, 1926).

An excellent and well-synthesized consideration of Washington as an acquirer of land, a pioneer promoter of transportation facilities between the sea-board States and the region west of the Appalachians, and as an actual farmer. The illustration is of Mount Vernon.

Smith, Mrs. Lewis Worthington. An Experimental Farm in Old Virginia; In a Land Without Experiment Stations, Washington Made His Own at Mt. Vernon. Wallaces' Farmer, 54 (8): 7, 32(Feb. 23, 1929).

GEORGE WASHINGTON, FARMER
(Cont'd)

Secondary References (Cont'd)

Wilstach, Paul. Mount Vernon; Washington's Home and the Nation's Shrine. Garden City, N. Y., Doubleday, Page & Co., 1916. 301 p., illus, maps, plan.

Reviewed by J. C. Fitzpatrick in Amer. Hist. Rev.,22: 446-447 (January,1917)

Various later editions.

Note particularly ch. 6-8. The material in these chapters is also found in Country Life in A merica, 30(1):35-37; (2):31-33; (5):29-31 (May, June and September, 1916)

The illustrations include pictures of the following: Mount Vernon mansion; the old brick barn; survey of Mount Vernon made by Washington when a boy, about 1746; the south lane; the kitchen fireplace; the north lane; a map of Washington's farm from a drawing transmitted by him; a lane below the old brick barn; the west lodge gates; the river shore; the west parlor; the family dining room; the music room; the sitting room; north and south lanes; the floor plans of Mount Vernon; the great window in the banquet hall; the north colonnade; the central hall or passage; a vista through the portico; Samuel Vaughan's plan of Mount Vernon; box maze and greenhouses; the walled vegetable garden; the south ha-ha wall; a section of the lichen covered garden wall.

GARDEN BOOKS

As this is the time of year when libraries are likely to be asked to recommend books on gardening it may be helpful to call attention to the recent list by Miss Dorothy Manks, Librarian of the Massachusetts Horticultural Society, which was contained in Horticulture for December 15, 1930, (p. 574-75) and the list by Mrs. Francis King in the same periodical for March 1, 1931 (p. 96). In the introduction to her list Mrs. King makes the following interesting comments:

"Not a book on this list, if we except reference books, cyclopaedias larger and smaller, but will bring to the reader more than mere information. The Little Garden Series is, I think, conceded to be the best set of inexpensive garden books yet published in America. For obvious reasons I have named no books of my own; they can be readily found if wanted.

Often it goes to my heart to see dull or valueless, spiritless, garden books recommended to beginners in gardening. They should commence with the very best written. And I quote now from one of the reviewers of the Bulletin of the Garden Club of America, in the November issue; she asks 'How can we influence the publishers to cease accepting some of the 'baby stuff' on gardens which floods the market today? It offends us and belittles the whole subject of gardening as a fine art.

"We are convinced that the book-buyers of the Garden Club of America would relish more technical and knowledgeable books and that they long to be relieved of a type of garden book so prevalent at the present time - often merely a combination of sentimentality and repetition.' "

THE NEW LIBRARY AT THE UNIVERSITY OF MARYLAND

By Grace Barnes, Librarian

When the students of the University of Maryland at College Park, Maryland, returned on April 8th from a week of Easter vacation, they found that the library had been transported during that time to the new building. Centrally located on the hillside, in a setting of tall trees, the site of the building is ideal from practical and esthetic standpoints. The materials used are red brick and limestone. Six stone columns of Ionic design supporting a high portico at the front emphasize the Grecian character of the edifice. Smith and May of Baltimore, erected the building at a cost of $215,000.

The front of the ground floor is occupied by the offices of the President, Assistant President, Financial Secretary and Registrar, a room in which the Board of Regents will meet and a small room for the newly installed private branch exchange switchboard, a convenience much appreciated. At the back of this floor are rest rooms and two seminar rooms, the larger one being a study room for advanced students of the sciences.

The library occupies all of the second floor, the main stairway entering the delivery room. This room opens through an arched entrance on the right into the reading room, which occupies the entire front of the T-shaped building. It is 42 by 129 feet, and will seat 250. This room is very attractive, with its walnut woodwork, pedestal tables, Bank of England chairs and heavy drawn curtains of neutral tint. The lighting is mostly by indirect reflection on the ceiling from the hanging fixtures. The shelves in this room will accommodate 6,000 volumes.

Opposite the stairway in the delivery room the book stacks are visible through three arches. A recess occupied by the catalog is back of the middle arch, delivery desks are placed in the others and a continuation of the delivery counter in front of an arch in the reading room forms a desk for the Reference Librarian.

The catalog trays can be used from the front by the public and from the back by the staff, as they are made to pull both ways. This is very convenient to the assistants at the delivery desk as well as to the catalogers, whose room is next to the stacks at the back of the building. The Librarian's office is between the catalog room and a small seminar room.

There are five tiers of book stacks with capacity of about 50,000 volumes. An electric elevator is located in one corner of the stack. On four of the stack floors, next to the windows, there are cubicles, eighteen in all, equipped with book shelf, table and chair for the convenience of advanced students. Snead and Company furnishes the stacks.

Undergraduates, graduates and members of the faculty are finding great satisfaction in the new quarters and are showing it by greatly increased use of the library.

When it becomes necessary to add to the library's quarters, this may be done by giving to it the rooms now occupied by the administrative offices on the ground floor and the students supply store and postoffice in the basement and by an addition at the back square to the top of the T, which forms the front of the building.

AGRICULTURAL LIBRARIES SECTION MEETING

The next meeting of the Agricultural Libraries Section of the American Library Association will be held in connection with the Conference at New Haven, Connecticut, on Monday June 22 in the afternoon, probably at 2:30. The general subject for discussion at the meeting will be the Report of the Committee on Relationships between the State Agricultural College libraries and the U. S. Department of Agriculture Library. The subject is an important one and one that concerns practically all agricultural libraries in this country. It is hoped that there will be a large attendance at the meeting and that many will come prepared to take part in the discussion. Reports of the committees of the Section will also be presented. Mr. C. H. Brown, Librarian of the Iowa State College, is Chairman of the Committee on Relationships appointed at the meeting in May, 1929, and will present the report of the Committee.

An endeavor will be made to arrange a breakfast for the Section on Wednesday morning in order that those attending the section may become better acquainted. The following nominating committee has been appointed by the Chairman: Mr. James A. McMillen, Librarian, Louisiana State University, Chairman; Miss Lucy M. Lewis, Librarian, Oregon State Agricultural College, and Mr. Wm. W. Shirley, Librarian, University of New Hampshire.

A letter has been received from Miss Zeliaette Troy, Librarian of the Boyce Thompson Institute for Plant Research, at Yonkers, New York, extending a cordial invitation to the members of the Section to visit the Boyce Thompson Institute Library on their way to or from the New Haven meeting. It is suggested that those planning to visit the library drop Miss Troy a note in order that she may give definite directions as to how to go out to Yonkers.

Mr. W. L. Slate, Director of the Connecticut Agricultural Experiment Station at New Haven, has also invited the members of the Section to visit the Station Library.

Emma B. Hawks, Secretary,
(Associate Librarian, Library,
U. S. Department of Agriculture)

W. W. Ellis, Chairman
(Librarian, New York State
College of Agriculture, Ithaca.)

AROUND THE AGRICULTURAL LIBRARY CIRCUIT

California

Mrs. Esther Lundgren who for the past two and one-half years has been regional librarian of the Office of Forest Service District No. 5, headquarters of which are in San Francisco, California, is leaving the service March 31 for a six months trip to Europe. Miss Helen Moore of Seattle, Washington, a graduate of the University of Washington Library School, has been appointed to the position.

Colorado

The Colorado Agricultural College Library has issued a one-page mimeographed list of Books and Bulletins on Live-Stock and Dairying.

Michigan

The Michigan State College Record for January, 1931, contains an article entitled: "Alumni Given View of College Dollar." This shows that the Library gets only 1.56 cents out of every dollar spent by the College.

Montana

The Librarian of the Montana State College, Bozeman, sends the following suggestions:

"I am enclosing the record of our circulation for February for the last two years, not because it is what it ought to be but because it shows an improvement over its record of two years ago. I should like very much to see the circulation record of all the Land-grant colleges included from time to time in Agricultural Library Notes. I believe that such a record would serve as a measuring stick to each library. The enrollment of the school for 1930 is 1086.

Circulation
(February)

	1929	1930	1931
Home	771	1395	2621
Reserves		3362	2272

"As to printed cards for agricultural experiment station publications, I quite agree with the librarian of New Hampshire Experiment Station, that Department bulletin 1199 and its supplements take the place of cards, but that Department bulletin 1199 with its first supplement should have a subject index. Cards take up much room and cabinets are expensive."

Oklahoma

Lucille F. Pendell, Document Librarian of the Oklahoma Agricultural and Mechanical College, has an article in the Wilson Bulletin for Librarians, vol. 5, no. 8, April, 1931, on "The Use of Federal Documents."

South Dakota

The South Dakota State College on February 21, 1931, observed its fiftieth anniversary of the legislation establishing the college. In connection with the event the college library arranged a small exhibit of three tables in the cataloguing room. A table was devoted to works of historic interest, including the first edition of the complete English version of Linnaeus, an early edition of Hales' Statistical Essays, Nuttall's Genera, which is fundamentally important for the flora of this region, and a number of other works interesting because of association or age.

Another table was devoted to publications printed out of society or government funds, mostly provided with large and beautiful plates. The chief of these was Emperor Maximilian's Travels in Brazil.

The third table contained books of standard or present day interest.

Descriptive legends accompanied each item. There was nothing spectacular about the exhibit or its reception by the public. Comments, however, indicated that it was worth the time involved. Requests have been made that from time to time other exhibits be made, particularly one relating to agriculture, another to zoology, and another to bringing together some of our choicer works in biography.

The History of South Dakota State College, 1881-1931, recently published by the college, was edited by Prof. Wm. H. Powers, Librarian. Two and a half pages of Chapter V are devoted to the history of the Library.

BINDING BULLETIN COVERS

The following is a compilation and summary of the responses received to date from the binding query in Agricultural Library Notes (Feb.1931,p.46):

The responses received now total thirty-seven, and an occasional reply is still coming in. Of the librarians who have replied, 15 state that, when binding, they do not discard covers of bulletins; 16 report that they do not discard the covers if information is printed thereon; and 6 say that they discard all covers before sending the bulletins to the bindery. In only one or two instances were the replies difficult to classify.

A few comments from the returns in each classification follow:

"We do not discard covers. In this way no information is lost and if the cover carries no printing no harm is done. Also the covers make it easier to locate a bulletin in the bound volume." (Librarian of the College of Agriculture of the University of Nebraska.)

"We bind the covers for the following reasons: The bulletin is much easier to locate in the volume; often the picture, illustration, or diagram on the cover, even though without informational value, is important; the cover helps visual-minded people in locating a bulletin when they do not know the number of the bulletin they are seeking." (Librarian, Agricultural Experiment Station, Stillwater, Oklahoma.)

An additional reason for binding the covers is found in the reply from the Librarian of the Joseph Schaffner Library of Commerce of Northwestern University: "We bind covers of all publications that are not paged consecutively. The covers make both cataloguing and use more simple".

This reply, from the Head of the Documents Department of the Kansas State College of Agriculture Library, we have classified as representing those who bind covers if they carry information (such as was mentioned in our query): "We do not like to have to bind the heavy covers. Therefore we prefer the idea of leaving this space blank and placing all supplementary information in a footnote of the first page. However, if the cover contains valuable information not to be found on the first page of the publication we do bind it. The cover is discarded in binding if the information on the back is such as the personnel of the editorial staff and the contents of the individual number."

Most of those who do not bind covers offer no remarks. This reply from the Agricultural Librarian of the University of Illinois, which we have classified, for the purposes of this inquiry only, as representing those who do not bind covers, makes an exception: "All binding for the Agriculture Library is done through the Binding Department of the University Library. The usual custom is to bind in the covers of the last issue of the volume. This has been followed with the Department of Agriculture publications. Personally, I prefer all supplementary information in a footnote on the first page."

Apparently special libraries in business houses do not have the same space difficulties and limitation of choice of quarters that beset many agricultural librarians if one may judge by the spirited reply from the Librarian of the Statistical Bureau, Western Lines in Chicago: "Publications are kept intact. I would not like the Department of Agriculture to mutilate a bulletin before sending it to me and I certainly would not mutilate it after I had received it. The space saved by removing the cover is too inconsequential for consideration. A library that is cramped for shelf room to that degree had better be looking for new quarters."

It is hoped that many more replies will be received. The more the replies, the more useful the returns from this query will be to agricultural editors when they are planning their publications.

BIBLIOGRAPHIES AND INDEXES

General Index to Experiment Station Record, volumes 41 to 50, 1919-1924. Prepared by Martha C. Gundlach. 709 p. Washington, D. C., U. S. Department of Agriculture, Office of Experiment Stations, 1931.

This is the third of the general indexes to the Experiment Station Record. References to Bibiographies cover five pages.

A London Bibliography of the Social Sciences. Being the subject catalogue of the British Library of Political and Economic Science at the School of Economics, the Goldsmith's Library of Economic Literature at the University of London, the Libraries of the Royal Statistical Society and the Royal Anthropological Institute, and certain special collections at University College, London, and elsewhere. Compiled under the direction of B. M. Headicar, Librarian of the British Library of Political and Economic Science, and C. Fuller, Assistant Librarian, with an introduction by Sidney Webb (Lord Passfield). Volume I. A-F. 1130 p. London, The London School of Economics & Political Science, 1931.

50 pages of volume I are devoted to agriculture and its subdivisions. The four volumes give the contents of the collections covered as of the 31st of May, 1929. The total number of items separately listed in them exceeds 600,000. Financially the work was made possible by the joint help of the Laura Spelman Rockefeller Memorial and the Carnegie United Kingdom Trustees.

Ministry of Agriculture and Fisheries. Cowan Memorial Library. Hand list of books in English printed after 1830. 1931. 25 p. (Mimeographed)

As a memorial to its late President and founder, Dr. Thomas William Cowan, the British Bee Keepers' Association acquired his library relating to bees and made arrangements for its accomodation at the offices of the Ministry of Agriculture. The collection, which is known as "The Cowan Memorial Library", contains over 1800 volumes consisting solely of literature devoted to bees and allied interests and includes many works of antiquarian interest - some of them dating from the sixteenth century. Complete sets of various periodicals connected with apiculture are also included, together with a large number of foreign works. Printed works earlier than 1830 are included in the "Chronological List of Early Agricultural Works in the Library of the Ministry of Agriculture and Fisheries" by G. E. Fussell, issued in 1930.

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The following brief lists compiled by Everett E. Edwards, Division of Statistical and Historical Research, Bureau of Agricultural Economics, U.S. Department of Agriculture, are available in mimeographed form:

Agriculture in the life of the nation. A list of selected references. Rev. Mar. 1, 1931. 8 p.

The history of agriculture in the United States. A brief list of annotated references. Jan. 1931. 8 p.

Issued Dec. 1, 1928, Feb. 1, 1929, and Aug. 1, 1930, with the title "General Accounts and Summaries of the History of Agriculture in the United States."

Outline and list of reading for the course in the history of American agriculture, Graduate school, U.S. Dept. of Agriculture. 1931. 25 p.

COMMENTARY ON CURRENT HORTICULTURAL LITERATURE

At the Imperial Horticultural Conference, held in London on August 5th to 7th, 1930, the following resolution was adopted:

"That a commentary on current horticultural literature is desirable and should take the form of summaries of sufficient length to indicate the contents and scope of the papers concerned."

To give effect to this resolution the Imperial Bureau of Fruit Production, East Malling, Kent, England, has recently issued a mimeographed list of "Periodicals, Examined by the Imperial Bureau of Fruit Production". The entries in the list are given in five columns - the first gives the title of the journal, the second, where it is obtainable, the third, frequency of publication and cost, the fourth, a brief summary of the contents, and the fifth, where it is available "overseas". One hundred and forty-nine entries are included in the list. The price is 1/6 shillings. The following extracts from the introduction explain its purpose and the plans for the commentary:

"The present list of a large part of the periodic literature available to us will serve, it is hoped, as an introduction to the actual commentary. It is a list of regular periodicals, other than annual reports, yearbooks etc. - which will form the subject of a second list at a later date - which should be regularly available to and examined by the members of the Bureau staff from January 1931. Notes are given as to the character of each periodical, its cost and place of issue, and the Departments or Institutions where - in accordance with the replies to our circular letter of July-August 1929 - it may be consulted in the Empire outside the British Isles. ... We realize that certain important periodicals may be absent from our list, and we would ask our correspondents to call our attention to them, giving, if possible, the cost and address of issue of such additional periodicals as they consider should be examined by us. It is proposed that the first issue of the commentary itself shall appear in February or March at latest and shall cover the more important publications on fruit growing issued in 1930. It is hoped that subsequent issues will appear quarterly and that it will be possible to deal with literature published in the quarter immediately preceding that issue."

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PLANT DISEASE HOST INDEX.

A comprehensive Host Index of Plant Pathological Literature is maintained by the Plant Disease Survey of the Bureau of Plant Industry. This index supplements the plant pathology catalogue of the bureau library in providing a more detailed analysis of papers which mention numerous hosts, and is particularly suited to the use of investigators who are reviewing the literature of a particular host or group of hosts.

The Citrus Experiment Station of Riverside, California, has just paid for the copying of the entire list of entries on citrus diseases from this Host Index. These entries comprise between 7000 and 8000 references. They will be filed in the station library, and the entries kept up to date either by the station staff or in cooperation with the Bureau of Plant Industry.

The Host Index may be consulted by anyone interested. Arrangements for copying entries may also be made, as in the case of the Citrus Station.

MISCELLANY

At the School of Library Science, Columbia University, the theses of three of the candidates for the degree of Master of Science are on subjects of special interest in agricultural library work. Mrs. Neva V. Ford, formerly connected with the University of Wyoming library, has taken as her subject "What is an adequate collection of agricultural and periodical material for the libraries of land grant colleges and experiment stations"; the subject of Miss Lucy L. Lancaster's thesis is "Do the libraries of land grant colleges provide a representative collection of the 'classics' of agricultural literature?". Miss Lancaster was formerly assistant librarian of the Virginia Polytechnic Institute. "What are the essential books in general botany for the college libraries of the Rocky Mountain region" is the subject of the thesis of Mrs. Lois B. Payson, formerly general assistant of the Montana State College library. It is most gratifying that these students, who were formerly connected with land grant institutions, have taken these subjects for their theses, as it augurs well for an increased interest in agricultural library work. It will be remembered also that at the University of Illinois Library School, Mr. Allen Ditmars Wilson selected as the subject of his thesis "Agricultural periodicals in the United States".

Various articles on the form of bibliographical citations have been published in "Science" in the past few years. Another article on the subject entitled "A Uniform Scheme for Citations", by Bernard H. Lane, Editor of the U. S. Geological Survey, is contained in "Science" for April 10, 1931, p. 390-392.

A "Conference of Roadside Operators" was held at Durham, N. H., March 25 and 26. The Conference attracted about 200 persons interested in the following: Overnight Accommodations in Private Homes; Overnight Cabins; Meal Service in Private Homes; Tea Rooms; Summer Boarder Service; Roadside Stands; Kitchen Industries; Gift Shops. Abstracts of this conference will be issued as a regular bulletin of the New Hampshire Extension Service.

"Why Books for Farmers", by Alson Secor, Editorial Department of Successful Farmer, and "Farmers and County Libraries", by Carroll P. Streeter, Field Editorial Service of The Farmer's Wife, are the titles of two articles in the January, 1931, number of the Wisconsin Library Bulletin, advocating county libraries. They are reprinted in the Michigan Library Bulletin for April 1931.

"Books for the Bookless. How the County Library is solving the Problem for the Rural People" is the title of an article in American Farming for March 1931, by Tommie Dora Barker, Regional Field Agent for the South, American Library Association.

A statement of the interlibrary loans obtained from various libraries by the Main Library of the Canada Department of Agriculture during the fiscal year ending March 30, 1931, shows that 52 out of the total of 286 were obtained from the Library of the U. S. Department of Agriculture.

NOTES ON PERIODICALS

Three new journals are being issued by the Imperial Council of Agricultural Research, Calcutta, inaugurating a new series of publications in agricultural and veterinary science. The names of the new journals are "Agriculture and Live Stock in India" (price 9s. 9d. per annum); "Indian Journal of Agricultural Science" (price 16s. 6d. per annum); "Indian Journal of Veterinary Science & Animal Husbandry" (price 8s. 3d. per annum). They take the place of the "Agricultural Journal of India", the "Journal of the Central Bureau for Animal Husbandry and Dairying" and the Memoirs and Bulletins of the Imperial Department of Agriculture in India. "Agriculture and Live-stock in India" is intended to be a general journal appealing to a wide circle of readers. The other two journals will be scientific and will largely take the place of the Bulletins and Memoirs. The Council will also bring out special monographs when scientific material is available for publication which requires a special format or which for other reasons cannot conveniently be published in either of the journals. The "Indian Journal of Agricultural Science" will appear in alternate months; the "Indian Journal of Veterinary Science and Animal Husbandry" will be a quarterly, the first number appearing in March 1931. During 1931 "Agriculture and Live-stock in India" will, commencing from January 1931, appear in alternate months, in the same manner as the "Agricultural Journal of India" which it replaces, but it is hoped to issue it monthly in 1932. A new feature of the journals will be the abstracts sections.

"Brittonia: A Series of Botanical Papers" is the title of a new series to be published at irregular intervals, by the New York Botanical Garden. Volume 1, number 1 was issued in February, 1931. The following is taken from the first number: "Brittonia, planned primarily to cover the fields of systematic botany and plant geography, although papers in other fields are not excluded, is named in honor of Nathaniel Lord Britton, Secretary of the New York Botanical Garden from its establishment, February 12, 1895 to August 1, 1929, and its Director-in-Chief from July 1, 1896, to August 1, 1929. It was originally suggested that a special volume of the Memoirs of the New York Botanical Garden dedicated to Dr. Britton, be issued in appreciation of his services... This matter was discussed at the meetings of the Scientific Directors and the Board of Managers on January 11 and 13, 1930, respectively. Attention was called to the fact that the Garden did not maintain a periodical covering the technical field of botany in which miscellaneous contributions from the staff, and also papers prepared by other than staff members, based in part or entirely on its own material, could be published. After a consideration of this situation it was the unanimous opinion of members of the Scientific Directors and the Board of Managers present at the meetings that such a periodical should be established and maintained by the Garden. Under the circumstances, the selection of the name Brittonia for this new periodical is appropriate, thus establishing a continuing memorial to the man through whose enthusiasm, ability and foresight the establishment of the New York Botanical Garden became an assured fact, and who directed its development and destiny for a period of thirty-three years."

NOTES ON PERIODICALS
(Cont'd)

Annales agronomiques. 92 rue Bonaparte, Paris-VI. bi-mo. 8°. vol. 1, no. 1, Ja./F. 1931. Abonnement annuel: France: 72 fr.50 -étranger: 87 fr. Successor to Annales de la science agronomique française et étrangère.

Annales de la science agronomique française et étrangère. Paris. Discontinued with année 47, no. 6, Nov./Dec. 1930. Succeeded by Annales agronomiques (nouvelle série)

Cooperation. Columbia, S. C. Discontinued with Dec. 1930. Succeeded by Cotton co-op of South Carolina.

Cotton co-op of South Carolina. South Carolina cotton grower's cooperative association, 821 Divine St., Columbia, S.C. mo. f° vol. 1, no.1, Ja. 20, 1931.

Ecuador - Agricultura, Departamento de. Revista. Quito. mo., 8°vol. 1, no. 1, Mr. 1931. No price stated.

Imperial bureau of animal genetics, Edinburgh. References to literature contained in periodicals received by the Imperial bureau of animal genetics. King's Building, University of Edinburgh, Edinburgh. f° Jan./Feb. 1931. Mimeographed.

Peanut journal. Suffolk, Va. Changed to Peanut journal and nut world with vol. 10, no.4, F. 7, 1931.

Peanut world. 134 So. Main St., Suffolk, Va. mo. f° vol. 1, no. 1, Ap. 2, 1931. 10¢ per copy.

Sunyatsenia. Director of the Botanical Institute, College of agriculture, Sun Yatsen university, Canton, China. quar., 8° pl., vol. 1, no. 1, Je. 1930. $4.00 in gold, or $8.00 in National currency. Single number $1.00 in gold or $2.00 National currency. (Journal of the Botanical Institute, College of agriculture, Sun Yatsen university)

Tropical veterinary bulletin. London. Discontinued with vol. 18, no. 4, D, 1930. Succeeded by Veterinary bulletin.

Veterinary bulletin. The Imperial bureau of animal health, Veterinary laboratory, Weybridge, Surrey, England. quar. (to be mo. beginning with Jan. 1932) 8° vol. 1, no. 1, Ap. 1931. Successor to Tropical veterinary bulletin.

West Virginia - Agriculture, Dept. of. Weekly market bulletin. Charleston, West Virginia. Changed to West Virginia - Agriculture, Dept. of. Market bulletin with vol. 14, no. 4, Aug. 25, 1930.

Zeitschrift für das gesamte getreidewesen; technische und wissenschaftliche monatshefte für landwirtschaft, müllerei und bäckerei. Berlin. With vol. 18, no. 1, Ja. 1931 combined with Zeitschrift für das gesamte mühlenwesen wissenschaftlich-technische monatshefte für landwirtschaft, speicherbau, transportwesen, müllerei, bäckerei u. verwandte industrien and name changed to Zeitschrift für das gesamte getreide- und mühlenwesen; technische und wissenschaftliche monatshefte für landwirtschaft, müllerei und backerei.

Preparing the Research Paper. A Handbook for Undergraduates. By R. Morrell Schmitz, Instructor in English, Washington University, St. Louis, Mo. 94 p. New York, Richard R. Smith, Inc., 1931.

Contents: Introduction, The Selection of a Subject, the Library and its Uses, Bibliographies, Method of Procedure for Gathering Material and Organizing the Paper, Style Book for the Mechanics of Composition, Selections from Undergraduate Research Themes, "Ten Commandments" for Undergraduate Writers.

The Indexing of Books and Periodicals. By John W. T. Walsh, M.A., D. Sc., M.I.E.E., Hon. Sec. International Commission on Illumination, Principal Assistant in the National Physical Laboratory. 118 p. New York, R. R. Bowker, London, Edward Arnold & Co., 1931.

The author points out that in supplying an index to a book there are two courses open to the author, viz. to employ a professional indexer, or to prepare the index himself. The object of this book is to help an author to prepare his own index. The contents of the volume are as follows: I, Introduction; II, The Choice of Entries; III, The Arrangement of the Entries under Catchwords; IV, Alphabetization; V, Name Entries; VI, The Indexing of Periodicals; VII, The Preparation of the Index; VIII, Tables of Contents.

United States Government Publications as Sources of Information for Libraries. By Anne Morris Boyd, Assistant Professor of Library Economy, University of Illinois Library School. 329 p. New York, The H. W. Wilson Company, 1931.

Contents: Chapter I. Introduction; Chapter II. Government organization and nature of publications; Chapter III. Printing and distribution; Chapter IV. Publications of Congress; Chapters VI-IX. Publications of the Executive Department; Chapter X. Independent Establishments: Appendix. Notes on bibliographical form for recording government publications; methods of obtaining publications; and miscellaneous; Index.

"The attempt has been made to present as clearly and accurately as possible those facts which are essential to an understanding of the publications of all periods, particularly those of the present, and to answer the questions which are most likely to arise in the student's mind as he studies them.

United States Reference Publications. A Guide to the Current Reference Publications of the Federal Government. Compiled by Jerome Kear Wilcox, Associate Reference Librarian, John Crerar Library, Chicago, Illinois. 90 p. F. W. Faxon Company, Boston, 1931. (Useful Reference Series No. 43)

"This bibliography attempts to bring together into one list the most important reference compilations, handbooks, directories, etc., recently or currently issued by the federal government. Two indexes have been appended: a general index and an index to directories... An annual supplement to this list is contemplated possibly to be issued in the Bulletin of Bibliography." (Introduction)

Washington the Farmer. By David M. Matteson. 31 p. Washington, D. C., George Washington Bicentennial Commission, 1931. (On cover: Honor to George Washington... Pamphlet no. 4)

"One of a series of 16 pamphlets authorized by the Congress of the United States". pt. 1. Land and crops and stock. pt. 2. Organization and labor. pt. 3. Washington's scientific farm methods, comp. by Albert Bushnell Hart.

George Washington the Farmer. In "George Washington, the Man of Action in Military and Civil Life", p. 35-41. (Papers for Program Six) Washington, D. C., George Washington Bicentennial Commission, 1931.

"One of a series of 12 Programs".

The Century of the Reaper. An Account of Cyrus Hall McCormick, the Inventor of the Reaper: of the McCormick Harvesting Machine Company, the Business he created: and of the International Harvester Company, his Heir and chief Memorial. By Cyrus McCormick. 307 p. il. New York, Houghton Mifflin Company, 1931.

"This book, written by the grandson of the inventor, is primarily a life of Cyrus Hall McCormick. It is also the fascinating story of the McCormick Harvesting Machine Company. In his contribution to the development of modern business are included his production methods, his pioneering in the field of advertising, his credit system, once regarded as sensational and impracticable, now a commonplace of business practice. Throughout the crowded century since the invention of the reaper, the book traces McCormick's life and work and their effects on human progress." (Publishers)

The Cattle King: A Dramatized Biography. By Edward F. Treadwell. 367 p. New York, The Macmillan Company 1931.

The story of Henry Miller, an immigrant butcher-boy from Germany, who landed in New York in 1847, went to California in 1850, became a cattle raiser, and was the owner of a million acres and a million head of livestock at the time of his death in 1916.

The Development of Agriculture in Territorial Dakota. By Harold E. Briggs, Professor of History and Political Science and head of the Department of Social Sciences, Culver-Stockton College, Canton, Missouri. (The Culver-Stockton Quarterly, vol. 7, no. 1, Jan. 1931. 38 p.)

A History of South Dakota State College, 1881-1931, Brookings, South Dakota. Edited by Wm. H. Powers, Librarian and Professor of Literature. 144 p. Brookings, South Dakota State College, 1931.

Agriculture and the Business Cycle since 1920: A Study in the Post-War Disparity of Prices. By Clarence Alton Wiley, Professor of Economics, University of Texas. 237 p. Madison. 1930. (University of Wisconsin Studies in the Social Sciences and History, No. 15)

"The chief aim of this study has been to seek out and isolate for this post-war period some of the primary factors contributing directly or indirectly to the recent disparity of agricultural prices in comparison with those of the non-agricultural commodities group". (Author's Preface)

The Ignoramus Garden Book. A Practical Handbook for the Beginner. By Mary Wheeler Rush. 172 p. New York, Sears Publishing Company, Inc., 1931.

The Handbook gives an elementary knowledge of the growth and care of the commoner flowers, condensed into a brief and simple outline and inscribed within a single page.

Perennial Gardens. By H. Stuart Ortloff. 88 p. il., New York, The Macmillan Company, 1931.

"This book tells how and where to use perennials in the home landscape, how to select appropriate kinds, and how to care for, cultivate, and propagate them. It is written for the home gardener who knows the beauty, value, and enjoyment to be gained from intelligent planning and planting of the home-grounds, and who wants to know more about perennials". Publishers.

Practical Carnation Culture. By T. A. Weston. 208 p. il. New York, A. T. De La Mare Company, Inc., 1931.

The author served for several years before the Great War as the Secretary of the British Carnation Society. The following is from his Foreword: "The Carnation is one of the best known, most widely grown and, withal, one of the most ancient of flowers. It has not, however, received the consideration from writers that its importance in commerce well merits. So far as the author is aware, the American books that have been devoted to the Carnation may be numbered on the fingers of one hand, and these few have long been out of print. For a decade at least the practical Carnation grower and the would-be grower have had no works of reference at their hand beyond occasional articles appearing in the trade journals and sundry English or other European books--these latter, well enough in their way, but not wholly suited to our climatic conditions. When it is considered that the Carnation as a green house subject owes its uprising to the United States the present paucity of information on it in book form is surprising . ... For the past ten years there has been a more or less steady inquiry for a new book on Carnations suited to American conditions". The book is an effort to supply that demand.

The Dahlia. A practical treatise on its habits, characteristics, cultivation and history. By Lawrence K. Peacock. Ed. 6. 124 p. il. New York, Orange Judd Publishing Company, Inc., 1931.

How to Grow Fruits and Flowers in Oklahoma and the Southwest. A practical book written in every day language of Oklahoma, giving the information acquired in the study and experience of forty years as a nurseryman and fruit grower. By Jim Parker. 216 p. il.

Written for the beginner in fruit and flower growing. The volume also includes eight bulletins on fruit growing, known as Shirt Sleeve Papers 1-8.

The soil and the Microbe. An introduction to the study of the microscopic population of the soil and its rôle in soil processes and plant growth. By Selman A. Waksman, Professor of Soil Microbiology, Rutgers University and Robert L. Starkey, Assistant Professor of Soil Microbiology, Rutgers University. 260 p. il. New York, John Wiley & Sons, Inc., 1931.

Plant Ecology. By W. B. McDougall, Professor of Botany in the University of Southern California. 2d rev. ed. 338 p. il. Philadelphia, Lea & Febiger, 1931.

In this second edition the material has been carefully revised in order to bring it up to date, a chapter on atmospheric humidity has been added and briefer additions have been made in various places throughout the book. The first edition contained 326 pages.

Plant Names Simplified. Their Meanings and Pronunciation. By A. T. Johnson, with foreword by A. J. Macself, Editor of "Amateur Gardening". 146 p. London, W. H. & L. Collingridge, Ltd., 1931.

The author has endeavored to offer the reader a simple translation and pronunciation of the names of such plants and trees as are commonly grown in the average garden.

Kostychev's Chemical Plant Physiology. Authorized edition in English with editorial notes. Written and revised by Dr. S. Kostychev, Member of the Russian Academy of Science. Translated and edited by Charles J. Lyon, Assistant Professor of Botany at Dartmouth College. 497 p. il. Philadelphia, P. Blakiston's Son & Co., 1931.

It is an "up-to-date rendition of a volume which appeared in German in 1926 as part one of the 'Lehrbuch der Pflanzenphysiologie' by Doctor Kostychev. The first volume was entitled 'Chemische Physiologie' with the implication that the second volume would deal with the physical aspects of plant physiology. The second volume has not yet appeared."

North American Institutions Featuring Lepidoptera. By J. D. Gunder. 295 p. Pasadena, California, The Author, 1931.

This volume consists of a series of nineteen articles brought together to meet the desire of entomologists to possess the series in one volume. The articles first appeared consecutively in the Entomological News of Philadelphia, Pa., during 1929 and 1930. They include portraits of more than five hundred well-known American and foreign entomologists with detailed accounts and illustrations of the museums and institutions in which they are employed. Special reference is made to larger collections of lepidoptera (butterflies and moths) and to disposition of important type material.

A Text-Book of Economic Zoology. By Z. P. Metcalf, Professor of Zoology, North Carolina State College. 392 p. il. Philadelphia, Lea & Febiger, 1930.

Attempts to furnish material for teaching the fundamental principles of zoology from the standpoint of the relation of animals to man.

Commodity Marketing. By Ralph F. Breyer, Assistant Professor of Commerce and Transportation, Wharton School of Finance and Commerce, University of Pennsylvania. 477 p. New York, McGraw-Hill Book Company, 1931.
Includes chapters on marketing of meats, cotton textiles, tobacco products, and farm equipment.

A Defence of Canada's Wheat Pool. A reply to Campell. 48 p. Calgary, Alberta, Alberta Wheat Pool, February, 1931.
A reply to Sydney S. Campell's "Canada and her wheat pool".

Report of the Ontario Fruit and Vegetable Marketing Commission. 37 p. Toronto, Ministry of Agriculture, 1931.
Mimeographed.

The Mechanical Properties of Wood. Including a discussion of the factors affecting the mechanical properties, working stresses for structural timber, and methods of timber testing. By George A. Garratt, Assistant Professor of Forest Products, Yale University. 276 p. il. New York, John Wiley & Sons, 1931.

Forest Measurement. By Harold C. Belyea, Assistant Professor of Forest Engineering, New York State College of Forestry, Syracuse, University. 319 p. New York, John Wiley & Sons, 1931.
Written to "meet the need for a textbook which would set forth the fundamentals of forest mensuration in a form sufficiently complete to be adaptable for assimilation by students of undergraduate rank approaching a consideration of the subject for the first time".

Handy Poultry Disease Manual. By George H. Conn, Assistant State Veterinarian of Illinois. 95 p. il. Mount Morris, Ill., Poultry Tribune, 1930. (Poultry Tribune Series)
Prepared for the average poultryman in order that he may have available definite suggestions for treatment when trouble develops. Only the more general diseases are outlined.

Sex Hygiene and Reproduction of Cattle. By W. W. Williams, Specialist in Reproductive Diseases of Cattle. 252 p. il. Springfield, Mass., The Author, 1930.

Game Farming. A Text-Book for the more Efficient and Economical Propagation of Pheasants, Quail, Wild Ducks and Ornamental Birds. By Horace Mitchell, Editor of Game Breeding Department of Field & Stream. 162 p. il. Portsmouth, N. H., Haley Publishing Company, 1930.

Wild Animals of North America. Intimate studies of big and little creatures of the mammal kingdom. By E. W. Nelson, Research Associate, Smithsonian Inst., formerly Chief, U. S. Biological Survey. 254 p. il. Washington, D.C., The National Geographic Society, 1930.
This volume combines the text and illustrations of two entire numbers of the National Geographic Magazine which were devoted to the Larger Mammals and the Smaller Mammals of North America, respectively.

FOREIGN BOOKS

The English Plough. By J. B. Passmore; Lecturer in Agricultural Machinery, University of Reading. 84 p. il. London, Humphrey Milford, 1930.

This work "consists of four sections, the first of which deals with the development of the English plough from the eighth century to the present day; the second section consists of detailed descriptions of the more important ploughs mentioned in the first section; the third section deals with the detaileddevelopment of the plough over the last two centuries, and this is set out by a series of studies of the views of designers, one of whom worked in the seventeenth century, two in the eighteenth century, and two others in the nineteenth century. The fourth section is given over to the development of the Kent plough, descriptions of modern one-way ploughs, and of one-way ploughing." A bibliography is included.

History of British Friesian Cattle with details, facts and figures relating to their performances, with statistical and historical information concerning their pedigrees, and with the History of the British Friesian Cattle Society, 1909 to 1930. Prepared, in 1930, by the British Friesian Cattle Society to mark its "Coming-of-age". 552 p. il. Printed and published for the British Friesian Cattle Society by W. E. Baxter Ltd., Lewes, 1930. Price 7/6 post free 8/3.

The Agricultural Crisis and the Way Out. By Cloudesley Brereton, with a Preface by the Right Hon. Lord Ernle, President of the Board of Agriculture, 1916-19. 47 p. Norwich, Eng., Jarrold & Sons, Ltd., 1930.

The articles contained in this pamphlet were reprinted from the "Eastern Daily Press", Norwich, September-October, 1930.

A Text Book of Agricultural Entomology. By Kenneth M. Smith, Entomologist in the Potato Virus Research Station, School of Agriculture, University of Cambridge. 285 p. il. Cambridge, University Press; New York, The Macmillan Company, 1931.

Designed for the use of the agriculturist as well as of the agricultural entomologist.

Insects, Ticks, Mites and Venomous Animals of Medical and Veterinary Importance. Part II. Public Health. By Walter Scott Patton, M.B., Ch.B. (Edin.) F.E.S. Dutton Memorial Professor of Entomology, Liverpool University, and Liverpool School of Tropical Medicine. Joint author (with Dr. Evans) of Part I, Medical (1929) 740 p. il. Made in Great Britain by H. R. Grubb, Ltd., Croydon, 1931.

"There is at the present time no book which deals with entomology from the strictly public health standpoint, and I have, therefore, written this one to fill this hiatus---This book forms Part 2 of the series dealing with "Insects, Ticks, Mites and Venomous Animals of Medical and Veterinary Importance", and is the companion volume to Part I, Medical; it deals with the subject from the public health standpoint. The method of teaching the subject is the same as that for the Diploma in Tropical Medicine given in Part 1...

Tropical Soil Forming Processes and the Development of Tropical Soils with Special Reference to Java and Sumatra. By Prof. Dr. E. C. Jul.Mohr, Sometime Director of the General Experiment Station for Agriculture at Buitenzorg, Java; Professor of Soil Science, University of Utrecht, Holland. "De Grond van Java en Sumatra", Second Edition, 1930. Translated from the Dutch by Robert L. Pendleton, Professor of Soil Technology, College of Agriculture, University of the Philippines. 213 p. University of the Philippines, 1930. (Experiment Station Contribution No. 655)
Mimeographed.

South African Grasses. With notes on their structure, distribution, cultivation, etc. By E. P. Phillips. 224 p. il. Johannesburg, Central News Agency, Ltd., 1931. (South African Agricultural Series, vol. 6)

Fruit-Growing under Irrigation; under the Climatic and Geographical Conditions pertaining to the Murray Valley. By F. R. Arndt, State Horticultural Instructor for the Upper Murray Irrigation Areas of South Australia. 2d ed. 214 p. il. Adelaide, The Hassell Press, 1930.
In this edition seven new chapters have been added and many of the old chapters have been rewritten and enlarged.

The Culture of the Orange and Allied Fruits. By H. Clark Powell, Professor of Horticulture, University of Pretoria, South Africa. 355 p. il. South Africa, Central News Agency, Ltd., 1930.

Institute of Plant Industry, Indore. Press Notices on the First Quinquennial Review of the Work of the Institute. 48 p. Calcutta, India, Baptist Mission Press, 1931.
The Institute of Plant Industry at Indore was founded on October 24, 1924 for: The establishment of an agricultural research Institute for the Indian Central Cotton Committee---; the training of post-graduate students nominated by the Central Cotton Committee; the provision of an agricultural centre for the States of Central India and Rajputana.

Environment and Plant Development. Being "Klima und Boden in ihrer Wirkung auf das Pflanzenleben" by Dr. Henrik Lundegårdh, Professor in Stockholm. Translated and edited from the second German edition by Eric Ashby, formerly Demonstrator in Botany, Imperial College of Science, London. 330 p. il. London, Edward Arnold & Co., 1931.
The original edition of this work was the outcome of a series of lectures delivered by the author in the winter of 1923-4 in Brünn. In the second edition the text has been thoroughly revised but the general structure of the book has been retained.

Bee-Keeping New and Old Described with Pen and Camera. By William Herrod-Hempsall, F.R.S., Hon. Secretary, Lecturer, Expert, and Apiarist to the British Bee-Keepers' Association. Vol. I. 772 p. London, W. C. 2, The British Bee Journal, 23, Bedford Street, Strand, 1930.

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L'Oranie et ses Richesses Agricoles. Par J. Manquene, Chef du Service Agricole Géneral du Département d'Oran. 232 p. il. Oran, Imprimerie Heintz Frères, 1930.

Dansk Landbrugspolitik. En Nutidsbelysning af Jordlove og Ejendomsskatter. Af A. C. Duborg. 106 p. København, Gyldendalske Boghandel, 1930.

Die Vererbung des Landlichen Grundbesitzes in der Nachkriegszeit. Herausgegeben von Max Sering und Constantin v. Dietze. 3 v. München und Leipzig, Verlag von Dunder & Humbolt, 1930.
Contents: I. Deutsches Reich; II. Nachbarländer; III. Die unerbengesetze in den deutschen und ausserdeutschen Ländern.

Das Saatgut. Ein handbuch für landwirte und berater der landwirtschaft, für Samenhändler und landwirtschaftliche Genossenschaften. Von Prof. Dr. Hermann Pieper, Abt.- Vorstand an der Staatl. Landw. Versuchsanstalt Dresden. 267 p. Berlin, Paul Parey, 1930.

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Handbuch der Milchwirtschaft. Band I- II, Teil 1. Wien, Julius Springer.
Contents: Bd. I, t. 1. Die milch. Zusammensetzung, Eigenschaften Veränderungen, Untersuchungen. 1930; Bd. I, t.2. Die milchproduction. Die milchviehzucht, fütterung, haltung und pflege der milchtiere, entstehung, gewinnung und behandlung der milch. 1930; Bd. II, t. 1. Die milchversorgung der Städte und grösseren konsumorte. 1931.

Industrias de la Leche por Nicasio Olivén, Professor de la Escuela Superior de Agricultura. 203 p. Editorial Cervantes, Av. Alfonso XIII, 332, Barcelona. 1930. (Manuales Prácticos Modernos III)

GRADUATE THESES OF APPROVED CANDIDATES FOR THE MASTER'S DEGREE IN AGRICULTURE, HOME ECONOMICS AND ALLIED SUBJECTS, AT THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE, 1915-1930.

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Agricultural Chemistry

Dalbom, Claude. A comparison of the Methods Used for the Determination of Sucrose in Plant Extracts. 1928.
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Moore, Charles S. The Influence of Feeding Foods Rich in Lecithin and Phosphorus Content upon the Brains of Dogs, Cats, and Guinea-Pigs. 1926.
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Bernet, Louis L. The Origin and Development of Cotton Growers' Associations, with Special Reference to Oklahoma. 1926.
Betts, Ronald E. A Business Study of some Cotton Cooperatives. 1928.
Clark, Carl M. Progress and Policies of the Oklahoma Wheat Growers' Associations. 1929.
Farrington, Olin M. A Study of the Oklahoma Cotton Growers' Association with Emphasis upon the Local Receiver System. 1930.
Fly, Claude Lee. The Commercial Utilization of Waste from the Cotton Gin; Studies of Destructive Distillation of Gin Waste. 1928.
King, Homer P. The Agricultural Income of Oklahoma Farm Land as a Measure for its Investment Value. 1927.
Kirch, Frederick William. Effect of Location on the Price of Wheat. 1930.
Payne, William Campbell. Taxes on Farm Lands in Payne and Wood Counties, Oklahoma, 1908 to 1927. 1928.
McBride, Elmer L. A Study of Farm Insurance in Oklahoma with Emphasis upon the Oklahoma Farmers' Union Mutual. 1930.
Middleton, J. W. Cotton Marketing in Oklahoma. 1925.

Agricultural Journalism

Peterson, Robert Victor. Status of Oklahoma Weekly Newspapers in Relation to former Subscribers' Attitude and Patronage. 1929.

Animal Husbandry

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Darlow, A. E. Animal Breeding Inheritance of Characters in Sheep. 1922.
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Foster, David H. Report of Test of a Feed Water Heater on Locomotive 866. 1927.

Animal Husbandry (Cont'd)

Larwood, Charles Homes. The Effect of Drinking Waters of High Salt Concentration upon Growth andReproduction of Animals. 1929.

Penquite, Robert. A Study of the Effect of certain Grain Sorghums on the Production of Spermatozoa by the Domestic Chicken. 1928.

Upp, Charles W. Correlation Studies Involving Body Weight and Seasonal Hatching in White Leghorns. 1926.

Whisenhunt, Floyd. The Effect of Birth Weight and Milk Supply on the Development of Pigs. 1930.

Young, Nolan. A Study of the Effects of Preparation and Utilization of Kafir Corn for Pork Production. 1925

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Botany

Shuhart, Donald Vincent. The Morphological Differentiation of the Pistillate Flowers of the Pecan. 1926.

Chemistry

Anderson, Hans Peter. The Synthesis of some new Homologs of Apocynol and Apocynin. 1929.

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Little, Bunyan Hall. The Synthesis of some New Alpha (3-Methoxy, 4-Benzoate Phenyl) N-Alkyl Carbinols Related to Apocynol. 1928.

Koch, Harold Carl William. The Separation and Analysis of the Mineral Andalusite in a Quartzite from Wausau, Wisconsin. 1927.

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Isenberg, Gilbert H. A Study of some Commercial Ice Cream Improvers. 1925.
Jamieson, W. C. My Experiences as a Dairyman. 1929.

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Brannon, Luther H. A Correlation Study of Cotton with Particular Reference to Yield, Length of Lint, Lint Per Cent, and Size of Boll. 1928.
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Haston, Clyde D. A Study of Variability of Darso with Particular Reference to Yielding Ability and Exertion. 1928.
Murphy, Henry F. Nitrate Studies in a Manured and Unmanured Soil under a Continuous Wheat Culture. 1923.
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Garlock, Bertha. The Effect of the Bacterial Flora on the Biological Test for Vitamine B.
Greene, Robert Alva. The Effect of Dietary Variations on Certain Constituents of the Blood and Urine of the Rat.
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Turner, Mildred. A Study to Ascertain the Relation between the Intelligence Quotient and the Physical-Nutritional Condition of a Group of Junior High School Pupils. 1929.
Williams, Lola Oldham. The Extent of Malnutrition and the Apparent Causes among the Children of Pre-School Age of Stillwater, Oklahoma. 1928.

Home Economics Education

Pearson, Millie Violet. The Minimum Essentials in Child Care and Child Training both as to Information and Doing Ability for Junior High School Girls. 1930.

McPheeters, Elinor H. A Check on the Educational Value of the Course of Study in Home Economics of the High Schools of Ardmore, Oklahoma. 1930.

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Whitehurst, Mary Edith. A Survey of the Homemaking Education of the Women in Oklahoma. 1925.

Household Art

Fernandes, Grace. Handbook for Teachers of Textiles for Women's Clothing. 1925.

Spencer, Lilly H. A Survey of the Expenditures of Women Students at the Oklahoma Agricultural and Mechanical College in 1927, with Special Reference to Clothing Costs. 1928.

Zoology and Entomology

Brown, W. J. The Coprophagous Scarabaeidae of Oklahoma and Kansas. 1924.

Hixson, Ephraim. Hibernation of the Cotton Boll-Weevil in Oklahoma. 1930.

Otey, Monroe Job, and Rector, Frank Leslie. A Detailed Study of the Centipede, (Scolopendra Morsitans), and the Tarantula, (Eurypelma Hentzii), with Special Reference to the Action of their Poisons.

Painter, Henry Raymond. A Synopsis of some Oklahoma Acrididae. 1916.

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The Iowa State College Library, Ames, has the following duplicates for exchange:

American Society for Horticultural Science, Proceedings, vol. 1-8, 11-13, 15 and 17 for the years 1903-11, 1914-16, 1918 and 1920.

The U. S. Department of Agriculture Library has the following publications for exchange:

Books

Allen, J. A. A list of the plants contained inthe 6th edition of Gray's Manual of the botany of the Northern United States...Compiled by John A. Allen. 1893. 2 cops.

Beal, W. J. Grasses of North America for farmers and students...1887.

Chittenden, F. H. Insects injurious to vegetables. 1918.

Coulter, J. M. Manual of the botany...of the Rocky Mountain Region, from New Mexico to the British Boundary. 1885.

Ellsworth, H. W. The American swine breeder...Boston. 1840.

Great Britain-Commission appointed to inquire into the origin and nature &c of the cattle plague. 1st-3d reports. London, 1865-66.

Harris, E. P. Co-operation. The hope of the consumer. 1918.

Institute for Government Research. Studies in Administration. The Problem of Indian Administration. Report...Feb. 21, 1928.

Kyoto. Imperial University. Institute of Chemistry, Department of Science. Anniversary volume dedicated to Masumi Chikashige by his pupils in celebration of his sixtieth birthday. 1930.

National Academy of Sciences. Investigation of the scientific and economic relations of the sorghum sugar industry....report...November 1882. 1883.

Rusby, H. H. and Jelliffe, S. E. Morphology and Histology of Plants. Part I. The morphology of plants, by Henry H. Rusby...Part II, Plant Histology by Smith Ely Jelliffe..1899.

Smith, E. D. Smith's Chrysanthemum manual. 7th ed. 1930.

Société nationale d'encouragement à l'agriculture et les office agricoles régionaux. Travaux du congrès des livres généalogiques. Paris, 1923.

Sullivan, J. W. Markets for the people. The Consumer's Part. 1913.

Wister, P. J. The food plants of the Philippines. (Philippine agricultural review. vol. 14, no.3, 1921)

Herd, Flock and Stud Books.

Algemeene nederlandsche zuivelband (F. N. Z.) Verslag, 1922.

American Aberdeen-Angus breeders' association. American Aberdeen-Angus herd book. v.34. 1923.

American Duroc-Jersey swine breeders association. American Duroc-Jersey record. v.1. 1885.

American Hampshire sheep association. Flock record of Hampshire Down sheep. v. 17, 1919.

American Jersey cattle club. Herd register. v. 93-99, 101, 103, 104, 108-11, 116.

American Jersey cattle club. Register of merit of Jersey cattle. 1916-17, 1917/18.

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Herd, Flock and Stud Books (Cont'd)

American polled shorthorn breeders association. American polled shorthorn herd book. v.9, 1919.
American Tamworth swine record association. Register. v. 1, pt. 1-2; v. 2; v. 3, pt. 1-3; v. 4, pt. 1-3; v. 7.
Blue Albion cattle herd book. v. 3, 1922.
Cat fanciers' association. Stud book and register. v.12, 1929.
Dairy shorthorn (Coates' herd book) association. Year book, 1924; Register of non-pedigree dairy shorthorns, v.9, 1926; v. 11, 1928.
Devon cattle breeders society. Davy's Devon herd book. v.52, 1929.
English Guernsey cattle society's herd book. v. 46, 1930.
Gt. Brit. - Ministry of agriculture and fisheries. Register of dairy cattle, v. 12.
Holstein-Friesian association of America. The advanced register herd book, v. 32, 36-38, 40 (1920/21, 1924/25, 1926/27, 1928/29)
Holstein-Friesian association of America. The herd improvement register year book, v. 1, (©1929)
National American kennel club stud book. v.1, 1878.
National Duroc-Jersey record association. v. 54. of the Duroc-Jersey swine record association, Nov. 1917; also v. 55, December, 1917.
National pig breeders association. Herd book, 1929. v. 11 (Wessex Saddleback section).
Nederlandsch rundvee-stamboek. 1924-1925. Aflevering 50, MRIJ.
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Ostpreussisches stutbuch für warmblut trakehner abstammung. Bd. VI - 4. Ergänzungsband, 1925; bd. VI - 5. Ergänzungsband, 1926.
Red poll cattle breeders' association of Australia. Red poll herd book of Australia. v. 1-3, 1921-25.
Red polled cattle club of America. Red polled herd book American series. v. 31-41, 1918-1929.
Royal Guernsey agricultural society - Alderney branch. Herd book, v. 9, 1928.
Royal Jersey agricultural and horticultural society. Jersey herd book milk records awards, 1928.
Ryeland flock book society. Ryeland flock book. v. 8, 1920; v. 12, 1924; v. 13, 1925.
Die Samvirkende danske landboforeningers stambog over tyre af rød dansk malkerace. Bd. 30, 1926. Faellesregister bd. 1-29, 1896 to 1925.
Schweizerisches hunde-stammbuch, v. 18, 26-28. 1919, 1927-29.
Shorthorn society of Great Britain and Ireland. Shorthorn breeders' guide, 1926 (2 cops.); 1930.
Société hippique percheronne. Stud-book percheron de France. v. 24, 1924; v. 26, 1926.
South Devon flock book association. Flock book. v. 26, 1929.
Southdown sheep society. The Southdown flock book. v.39, 1930.

WANTS

The New York State Agricultural Experiment Station, Geneva, wishes to obtain the following periodical: Biologisches Zentralblatt, vol. 49, no.10.

SELECTED LIST OF MIMEOGRAPHED PUBLICATIONS
of the U. S. Department of Agriculture *
issued during March and April 1931, exclusive of current issues of serials.

U. S. Department of Agriculture

Report of fifth annual conference in connection with European corn borer projects. September 24-25, 1930. Toledo, Ohio. 58 p.

Bureau of Agricultural Economics

An analysis of the South Carolina agricultural loan association. A preliminary report. [By William H. Rowe] 30 p. (Issued by Division of agricultural finance)

A changing farm life: what it is parting with; what gaining; what holding fast. Struggles in evolving a new rural civilization. By C. J. Galpin. 8 p. (Issued by Division of farm population and rural life)

Dairy and poultry market statistics. 1930 annual summary. Collected and comp. by Division of dairy and poultry products. 30 p.

Estimated numbers of apple trees by varieties and ages in commercial orchards in southeastern Nebraska. Jan. 1, 1928. [9] p. A part of an economic study of the apple industry in the United States. (Issued by Division of crop and livestock estimates)

Estimated numbers of apple trees by varieties and ages in commercial and farm orchards in Iowa. Jan. 1, 1928 [9] p. A part of an economic study of the apple industry of the United States. (Issued by Division of crop and livestock estimates)

Estimated numbers of apple trees by varieties and ages in commercial and farm orchards in North Carolina. Jan. 1, 1928 [14] p. A part of an economic study of the apple industry of the United States. (Issued by Division of crop and livestock estimates)

Estimated numbers of apple trees by varieties and ages in commercial and farm orchards in Arkansas. Jan. 1, 1928. [13] p. A part of an economic study of the apple industry in the United States. (Issued by Division of crop and livestock estimates)

Estimated numbers of apple trees by varieties and ages in commercial orchards in New Jersey. Jan. 1, 1928. [11] p. (Issued by Bureau of agricultural economics in cooperation with New Jersey state department of agriculture)

Factors related to production, prices, and acreage of potatoes in Maine. By L. H. Bean. 5 p. Abstract of address given at County agent meetings, Maine agricultural college, Orono, Maine, Feb. 5, 1931. (Issued by Division of statistical and historical research)

*For a list of the principal series issued regularly, see v. 4, no. 102, p. 347.

Bureau of Agricultural Economics (Cont'd)

Farm credit in the south. By David L. Wickens. 10 p. (Issued by Division of agricultural finance)

Foreign trade of the United States, annual, 1790-1930. Rice and rice products, by Caroline G. Gries. 26 p. (Report F. S. 53) (Issued by Foreign agricultural service division)

4-H club work in West Virginia. A preliminary report. [By T. L. Harris] 41 p. (Issued by Division of farm population and rural life)

Legislative aid to agriculture in foreign countries (With specific reference to foreign outlets for dairy products of the United States) By Asher Hobson. 10 p. (Issued by Division of foreign agricultural service)

Marketing Arizona lettuce. Summary of 1930 Spring season. By R. H. Lamb. 35 p. (Issued by Division of fruits and vegetables)

Marketing Eastern Shore strawberries, Delaware, Maryland and Virginia. Summary of 1930 season. By V. H. Nicholson. 21 p. (Issued by Division of fruits and vegetables)

Marketing the lower Rio Grande valley Texas potato crop. Summary of 1930 season. By W. D. Googe. 33 p. (Issued by Division of fruits and vegetables)

New and more complete index of feedstuff prices. 3 p. (Issued by Hay, feed and seed division. Market news service)

The perishable agricultural commodities act, 1930. By F. G. Robb. 14 p. Address, Western fruit jobbers association of America, Phoenix, Ariz., Jan. 15, 1931. (Issued by Division of fruits and vegetables)

Relation between production, prices, and acreage of potatoes in Idaho. By L. H. Bean. 6 p. (Issued by Division of statistical and historical research) Abstracts of addresses, Pacific northwest potato committee meetings at Rupert, Idaho Falls, Burley, Jerome, Eden, and Caldwell, week of Feb. 23, 1931.

Statistics of meat production, consumption and foreign trade of the United States, 1900-1930. Preliminary report. 10 numb. l.

A study of the variable composition of cotton seed. By G. S. Meloy. 18 p. (Issued by Division of cotton marketing)

Supplement to the Agricultural outlook for 1931, considered in relation to farmers' intentions to plant in 1931. 14 numb. l.

A survey of the United States bulb industry. A preliminary report. [By R. G. Hill] 55 p. (Issued by Division of fruits and vegetables)

Bureau of Agricultural Economics (Cont'd)

The Texas cotton growers finance corporation. A preliminary report. [By William H. Rowe] 38 p. (Issued by Division of agricultural finance.

United States standards for broomcorn, effective March 1, 1931. 5 p.

Bureau of Animal Industry

"Bitterweed" poisoning of livestock. By A. B. Clawson. 3 numb. l. (Issued by Pathological division)

Report of the Conference of animal husbandryand other specialists on range livestock problems at the United States range livestock experiment station; Miles City, Montana. Aug. 18, 19 and 20, 1930. 110 p. (Issued by Animal husbandry division)

Bureau of Dairy Industry

The manufacture of low-acid Rennet-type cottage cheese. By H. L. Wilson and C. S. Trimble. 9 numb. l. (Issued by Division of dairy manufacturing investigations and introduction)

National and international dairy organizations. 2 p. (BDIM-475)

Publications relating to ice cream. U. S. Dept. of agriculture publications. (Dairy library list no. 3. Rev. April 1931) 5 p.

Research and the dairy industry. A statement presented by O. E. Reed, Chief of the Bureau of dairy industry...at the National dairy conference, St. Louis, Mo., March 11-12, 1931. 13 p.

Bureau of Plant Industry

Grohoma - its history and value, by John H. Martin. 10 p. (Issued by Office of cereal crops and diseases.

The Katahdin potato: a new variety. By C. F. Clark, William Stuart, and F. J. Stevenson. 4 p. (Issued by Office of horticultural crops and diseases)

Progress of the barberry eradication campaign in Illinois, 1930. By R. W. Bills, agent. 6 p. (Issued by Office of barberry eradication)

Progress of the barberry eradication campaign in Indiana, 1930. By Wayne E. Leer. 10 p. (Issued by Office of barberry eradication)

Progress of the barberry eradication campaign in Iowa, 1930. By D. R. Shephard, agent. 8 p. (Issued by Office of barberry eradication)

Bureau of Plant Industry (Cont'd)

Progress of the barberry eradication campaign in Michigan, 1930. By Francis B. Powers, agent. 7 p. (Issued by Office of barberry eradication)

Progress of the barberry eradication campaign in Minnesota, 1930. By Leonard W. Melander. 7 p. (Issued by Office of barberry eradication)

Progress of the barberry eradication campaign in Montana, 1930. Prepared by George C. Mayoue, District leader, Joyce O. Roberts. 8 p. (Issued by Office of barberry eradication)

Progress of the barberry eradication campaign in Nebraska, 1930. By M. E. Young. 11 p. (Issued by Office of barberry eradication)

Progress of the barberry eradication campaign in North Dakota, 1930. Prepared by G. C. Mayoue, District leader 1, Joyce O. Roberts, assistant leader 2. 9 p. (Issued by Office of barberry eradication)

Progress of the barberry eradication campaign in Ohio, 1930. By Harry Atwood. 9 p. (Issued by Office of barberry eradication)

Progress of the barberry eradication campaign in South Dakota, 1930. By R. O. Bulger. 11 p. (Issued by Office of barberry eradication)

Progress of the barberry eradication campaign in Wisconsin, 1930. By Arnold J. Ullstrup. 10 p. (Issued by Office of barberry eradication)

Yields of spring-wheat varieties grown in plot experiments in the spring-wheat region in 1930. 30 p. (Issued by Office of cereal crops and diseases)

Extension Service

Educational values in 4-H club work. E. H. Shinn. 23 p. (U. S. Dept. of agriculture. Extension service. Office of cooperative extension work. Extension service circular 147) (Issued by Office of cooperative extension service)

The national 4-H club radio programs. 32 numb. l. (Issued by Office of Cooperative extension work)

The place of farm accounting in extension. C. R. Arnold. 7 numb. l. (U.S. Dept. of agriculture. Extension service. Office of cooperative extension work. Extension service circular 153)

A plan for correlating federal and state agricultural extension broadcasting through cooperating radio stations, 7 numb. l. (Issued by Office of cooperative extension work)

AGRICULTURAL LIBRARY NOTES

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AGRICULTURAL LIBRARY NOTES

Vol. 6 May-June, 1931 No. 5-6

AGRICULTURAL LIBRARIES SECTION MEETING
June 22, 1931

The Agricultural Libraries Section meeting was held on Monday afternoon, June 22, at Harkness Hall, Yale University, New Haven. The chairman, Mr. W.W. Ellis, Librarian, New York State College of Agriculture, presided. Mr.Ellis expressed appreciation of the honor of being elected chairman and of the assistance received from the honorary chairman, Miss C.R.Barnett, and the secretary, Miss E.B. Hawks, of the U.S. Department of Agriculture Library. As Miss Hawks was unable to be present at the meeting Miss J.M.Allen, Librarian of the Bureau of Plant Industry, U.S. Department of Agriculture, served as acting secretary. Before taking up the program, plans were made for a get-together breakfast at the Church Wall Tea Room on Wednesday morning. Miss Louise Brautlecht, Linrarian of the Connecticut Agricultural Experiment Station, extended an invitation from Doctor Slate, the Director, to visit the station, and it was voted to do so at the close of the meeting.

The report of the Committe on Cooperative Bibliographical Aid, submitted by Miss Bercaw, chairman, was read by Miss Allen, the acting secretary. The report follows:

"The committee has compiled nine lists since the 1930 report was made. These have been published in Rural America, sometimes under the title 'Literature of Rural Life' and sometimes under the title 'Things in Print'. There has been fine cooperation from each member of the committee. Two members submitted references for each of the nine lists compiled, one submitted eight and the other active member five. "The only other work in the line of cooperative bibliography which the committee has to report to the section is the completion of the index to the sources of the official and unofficial agricultural statistics of California. This index was begun in 1925 as a cooperative project with the College of Agriculture of the University of California. The University furnished a small sum of money and the agricultural reference librarian of the University was responsible for part V of the index. The complete index is in five parts as follows:

California. An index to the state sources of agricultural statistics Washington, D.C., 1930-1931. 5 parts. Mimeographed. (U.S. Department of Agriculture, Bureau of Agricultural Economics. Agricultural Economics Bibliography 31)

Contents:

Part I. Sections 1 and 2. Fruits, vegetables and nuts. An index to the official sources. Compiled by Louise O. Bercaw. 744 p.

Part II. Crops other than fruits, vegetables and nuts. An index to the official sources. Compiled by Louise O. Bercaw. 430 p.

Part III. Livestock and livestock products. An index to the official sources. Compiled by Louise O. Bercaw. 359 p.

Part IV. Land, farm property, irrigation and miscellaneous items. An index to the official sources. Compiled by Louise O. Bercaw. 120 p.

Part V. An index to some unofficial sources. Compiled under the direction of M.J. Abbott, Agricultural Reference Librarian, University of California Library. Feb., 1930. 67 p.

"The personnel of the committee during the past year was as follows: Jane Frodsham, Librarian, College of Agriculture, University of Missouri; Bertha E. Herse, Reference Librarian, Oregon State Agricultural College; Bess Lowry, Reference Librarian, Iowa State College; Julia Wright Merrill (ex-officio member), Executive Assistant, American Library Association, Committee on Library Extension; Louise O. Bercaw, Reference and Bibliographical Assistant, Bureau of Agricultural Economics, U. S. Department of Agriculture, Chairman.

Louise O. Bercaw,
Chairman."

Mr. Ellis said that he had received a number of requests for the continuance of this committee next year and it was therefore held over, with the following changes: Miss Bess Lowry was released at her request, and Miss Cora L. Feldkamp, Librarian, Office of Experiment Stations, U. S. Department of Agriculture, and Miss Caroline B. Sherman, Editor, Bureau of Agricultural Economics, U. S. Department of Agriculture, were added.

The main feature of the program was the report of the Committee on Relationships between the U. S. Department of Agriculture Library and the libraries of the land-grant colleges, universities, and experiment stations. The membership of the committee was as follows: Mr. Charles H. Brown, Librarian, Iowa State College, Chairman; Miss Claribel B. Barnett, Librarian, U. S. Department of Agriculture; Miss Lucy M. Lewis, Librarian, Oregon State Agricultural College; Mr. James A, McMillen, Librarian, Louisiana State University; Mr. Henry O.Severance,Librarian,University of Missouri. The report took the form of an informal discussion based on the questionnaire sent out by the chairman, Mr. Brown, on February 10, which related to the improvement of land-grant college libraries and aids for a more complete realization of their needs. On opening the discussion Mr. Brown said that he thought about three-fourths of the libraries were not functioning as they should some them being very small with no trained assistants. The situation, he thought, was rather discouraging since even in some of the larger institutions the presidents and other authorities are disposed to class library workers as clerks.

The questionnaire referred to above was then taken up. The questions follow, together with a statement of the replies received by mail and a summary of the verbal discussion.

1. Would printed cards for bulletins of experiment stations be of value to you? Yes, 30; No. 7; Uncertain, 3.

2. Would you probably subscribe if arrangements were made by the Library of Congress to print cards for them? Yes, 28; No. 10; Uncertain, 2.

As questions 1 and 2 are closely related, the discussion on these two questions was combined. Some felt that the fact that the station publica-

tions are indexed in the Experiment Station Record and the Agricultural Index made it unnecessary to print the cards. After some discussion a motion was, however, made and carried recommending that the U. S. Department of Agriculture Library try to arrange with the Library of Congress to print cards for the experiment station publications and that a circular letter be sent out to determine the number of libraries which would subscribe for them. A motion was also made and carried that an estimate of the cost of the cards per year be given in the circular letter. The necessity of cards for circulars was questioned, some stating that they would not be needed, others pointing out that the circulars were sometimes important. Miss Feldkamp said that last year there were about 1000 experiment station publications covering the results of investigations.

3. In view of the fact that the supplement to the Union List is being published and that further supplements will be issued in the future, do you think it is worth while to attempt another Union List for land-grant institutions? Yes, 4; No. 33. Many pointed out in their mail replies that state and regional lists would be more valuable than a union list for land-grant institutions.

The question as stated was passed over in view of the supplements to the Union List. Upon inquiry the majority of Librarians present indicated that their holdings are represented in the Union List. Miss Barnett described a card list of American agricultural periodicals compiled some years ago by the late S. C. Stuntz and now owned by the U. S. Department of Agriculture Library. It was suggested that it would be desirable to have a list of the holdings of American agricultural periodicals previous to 1870 contained in the agricultural college libraries. About fourteen librarians, a majority of those present, indicated that they would check such a list if it were sent to them. Mr. Brown suggested that the matter be left to the U. S. Department of Agriculture Library.

4. Is there any possibility that you would be able to attend once in three of four years a sectional meeting of libraries at the annual meetings of the Association of Land-Grant Colleges and Universities. These meetings alternate between Chicago and Washington. Yes, 36; No, 3; Uncertain, 2.

This question was not taken up. Instead it was moved and carried that the incoming executive committee of the section arrange through the Association of Land Grant Colleges and Universities to have an outstanding library speaker on the main program of the Association at its next meeting.

5. If assigned a special field, such as tobacco for Connecticut, corn for Iowa, would your library cooperate by being responsible for the collection, so far as practical, of all material published in that special field? It is understood, of course, that your institution would select its field. Yes, 35; No, 3; Uncertain, 4.

This was passed over in the discussion at the meeting, as not being practicable under present conditions.

6. Would the publication annually of a list of manuscript theses in the field of agriculture and home economics be of value to your institution? Yes, 32; No, 4; Uncertain, 4.

The motion was made and carried that the U. S. Department of Agriculture Library be asked to compile a list of theses on these subjects, including all doctors' theses, and a selected list of masters' theses. The majority of librarians present indicated that they would submit such lists from their institutions. Miss M.T. Olcott, of the Bureau of Agricultural Economics of the U. S. Department of Agriculture, called attention to the list of masters' theses in agricultural economics which is published in the Journal of Farm Economics.

7. Would it be of any value to have an assistant in your library assigned to the U. S. Department of Agriculture Library for a limited time, say three or six months, for work on a bibliographical undertaking of interest to your state? Yes, 28; No, 8; Uncertain, 3.

8. Would such an assignment be feasible for your institution? Yes,5; No, 28; Uncertain, 6.

Questions 7 and 8 were passed over in the discussion at the meeting as a matter for decision by individual librarians.

9. If the U. S. Department of Agriculture Library could not continue its service in interlibrary loans without charge, would you be willing to recommend the payment either of a fee for each loan or an annual allotment? It is understood, of course, that legal questions may be involved. Yes, 29; No, 5; Uncertain, 8. Some answered "No" under the theory that if a fee is charged by the U. S. Department of Agriculture they would naturally transfer their requests to some other library which would not charge a fee.

Miss Barnett explained that this question was not brought up by her and that payments would not be wanted or expected by the U. S. Department of Agriculture Library except perhaps in the case of very extensive requests such as compiling or checking long and difficult lists of references and long lists of duplicates, etc. There was some discussion but it was decided to pass the question until later, as it was to be taken up by the College and Reference Section.

10. Would it be of any value if an attempt should be made by the Office of Experiment Stations to determine the extent to which libraries of land-grant colleges are qualified to meet the needs of experiment station workers? This study would be an extension of one phase of the land grant survey by the U. S. Office of Education but should be, of course, much more thorough and much more comprehensive in its reports of findings of each institution. Yes, 22; No, 12; Uncertain, 4.

This was not discussed but the hope was expressed that a study might be made of the work done and the publications issued by the experiment stations, with the idea of pointing out unnecessary duplication. It was suggested that some one at the U. S. Department of Agriculture should do this.

11. Do you think that a stronger union of libraries of land-grant colleges and universities would be of value? Yes, 30; No, 4; Uncertain, 4.

The summary of the replies to this question received by letter was as follows: "It was pointed out by several librarians that the natural relationships are between the larger universities or between the regional libraries. Some doubt was expressed as to whether a stronger union of the libraries of land-grant institutions was desirable. Others felt that there was a need for some such association as representing institutions which are predominantly vocational as contrasted with liberal arts colleges. One or two proposed extending the Agricultural Libraries Section to include all activities of the land-grant institutions. One librarian proposed a permanent secretary for such an association, preferably some one in the U. S. Department of Agriculture Library." In the discussion of the question at the meeting Mr. Brown expressed doubt as to the value of the Agricultural Libraries Section, as so many of the land grant college libraries are no longer agricultural. He did not, however, advocate abolishing the section and on vote it was unanimously decided to continue it for the present.

In concluding the discussion on the report of the Committee on Relationships, Mr. Brown recommended that the committee be not continued.

Mr. James A. McMillen, Librarian of the Louisiana State University, was next called upon to make a statement on the work of the A.L.A. Committee to cooperate with the American Society for Horticultural Science, of which committee Mr. McMillen is chairman. Mr. McMillan reported that at the last meeting of the Society, Prof. A.T. Erwin of the Iowa State College, presented a paper on the Advancement of Horticultural Research in which he advocated the organization of systematic courses in the use of the library with special reference to the needs of horticultural students and the compilation of reading lists to be used in connection with courses in horticulture (See American Society for Horticultural Science, Proceedings, 1930, p. 570-574). In the discussion which followed Mr. McMillen's statement he made a plea for suggestions in connection with the work of the committee. The suggestion was also made that the preparation of courses and reading lists of the kind described be promoted throughout the field of agriculture.

Miss Barnett raised the question whether the lists of new books in "Agricultural Library Notes" were used and should be continued. The majority voted for their continuance. Miss Feldkamp asked whether the extension publications of the various states were generally kept and bound. Some of the librarians present stated that they kept those that were listed in the Agricultural Index.

At the request of Mr. Ellis, the report of the Nominating Committee, consisting of Mr. James A. McMillen, Librarian, Louisiana State University, Chairman; Lucy M. Lewis, Librarian, Oregon State Agricultural College; and Mr. William W. Shirley, Librarian, University of New Hampshire, was submitted by Mr. McMillen. The nominees were: Chairman, Mrs. Elsie D. Hand, Librarian, Oklahoma Agricultural and Mechanical College; Secretary, Miss Jessie M. Allen, Librarian, Bureau of Plant Industry, U.S. Department of Agriculture. The report was accepted and the election of these officers was made unanimous.

The number attending the Agricultural Libraries Section meeting was thirty-two. The land-grant colleges or experiment stations of the following states were represented: Connecticut, Florida, Idaho, Illinois, Iowa, Louisiana, Maryland, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia. In addition, the following institutions were represented: The Yale Forestry School, the Jackson Laboratory of E. I. Du Pont de Nemours & Co., and the U. S. Department of Agriculture.

The meeting adjourned at 4:15, the majority of the members going to visit the Connecticut State Experiment Station. Doctor Slate, the Director, and Miss Brautlecht, the Librarian, showed the visitors the library and some of the laboratories. Refreshments were served. The hospitality and courtesies were much appreciated by the members of the Section.

On Wednesday morning, June 24, twenty-six members were present at the get-together breakfast at the Church-Wall Tea Room, which was helpful in making the members better acquainted. Doctor Slate was the guest of honor.

JESSIE M. ALLEN
Actg. Secretary.

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CLASSIFICATION SCHEME FOR ILLUSTRATIVE MATERIAL

Under the title given above the Section of Visual Instruction and Editorial Work, Office of Cooperative Extension Work, U.S. Department of Agriculture, has issued, in mimeographed form, a classification scheme for photographs and slides. This scheme is based on the use of large and small letters with occasional use of figures where a subject is very minutely subdivided. The general outline of twenty-five classes is as follows: A. Climate and weather; B. Soils; C. Field crops; D. Horticulture; E. Forestry; F. Beef cattle; G. Dairy cattle; H. Horses and mules; I. Swine; J. Sheep and goats; K. Poultry; L. Other and minor farm animals; M. Entomology (not classified); N. Dairying; O. Irrigation (not classified); P. Drainage; R. Roads and bridges; S. Farm machinery and implements; T. Farm buildings and structures; U. Water, sewerage, and lighting systems; V. Rural sanitation; W. Home economics; X. Farm management and rural economics; Y. Agricultural education; Z. Miscellaneous.

In the scheme small letters alternate with the large, e. g.,

C FIELD CROPS
c Cereals
G Corn
p Insects and diseases, including damage by birds
E European corn-borer control
1. The insect and its refuge

There are some mnemonic features: z is always Miscellaneous; a, Statistics; o is often used for Marketing; p for Insects and diseases; and W for Varieties or kinds.

CENTENNIAL OF THE INVENTION OF THE McCORMICK REAPER

The centennial of the invention of the reaper by Cyrus Hall McCormick of Virginia is to be celebrated on July 29 at the Virginia Polytechnic Institute by a special McCormick Day program in connection with the Institute of Rural Affairs. An interesting feature of the celebration will be an historical exhibition of working models of harvesting machines. Included in this unique and instructive display will be a diorama, made in England and not previously shown in America, which represents in miniature the first public test of the reaper.

Five thousand years of grain harvesting history, from the sickle of Bible times to the 1931 model combined harvester-thresher, were dopicted in an Iowa State College rye field Wednesday, June 24th, before 3000 spectators, as a part of the twenty-fifth annual convention of the American Society of Agricultural Engineers.

The pageant was held to celebrate the 100th anniversary of the invention of the reaper. Four men wielding sickles, commonly called reap hooks, opened the pageant. Each was followed by a man who bound the grain by hand. Next came scythe-swingers and cradlers, typical of Revolutionary War days. The next step was the McCormick reaper, followed by numerous developments up to the horse-drawn reaper and binder, which is the most widely used harvester today.

Twenty-two mules drew a combined harvester-thresher, such as is used in large fields on the Pacific coast. It cut a 16-foot swath. This was followed by tractor-drawn combines, the most modern of which has "power takeoffs" so the motor of the tractor furnishes power for cutting and threshing mechanism instead of the wheels of the machine.

A modern combine can harvest and thresh 50 bushels of grain per hour. Twelve cradlers, 12 hand binders and 48 flailers would be required to cut and harvest the same amount.

An annual award of a gold medal for "exceptional and meritorious service to agriculture" was announced as the result of a permanent endowment fund from Cyrus McCormick, Jr., Mrs. Emmons Blaine and Harold McCormick, children of Cyrus Hall McCormick. Workers in any phase of agricultural engineering will be eligible for the awards, the first of which will be given at the 1932 convention. (Christian Science Monitor, June 25, 1931.)

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PUTNAM AGRICULTURAL FOUNDATION

An article in the American Farm Bureau Federation Weekly Letter for June 9, 1931, announces the formation of the Putnam Agricultural Foundation founded by George Martin Putnam, President of the New Hampshire Farm Bureau Federation and Director of the American Farm Bureau Federation, for the advancement of agriculture and rural community life in New Hampshire, as a memorial to his wife, Flora Clough Putnam. The article states that this is "the first instance in the country, to the knowledge of the incorporators, where a bona fide farmer, who has gained his livelihood on the farm, has seen fit to take the initiative in creating a trust for such a purpose. The incorporators feel that the establishment of this Foundation is an important milestone in the history of agriculture in New Hampshire and that as a result, agriculture as an industry and rural community state will be aided substantial-

HOW A SCIENTIFIC JOURNAL MAY BE PRESERVED AND MADE PERMANENTLY USEFUL

By T. S. Palmer, Secretary, American Ornithologists' Union.

The American Ornithologists' Union publishes the quarterly journal known as "The Auk" for distribution to its members. This journal, containing original articles on birds, brief notes, reviews of current literature, and general notes and news, forms an annual volume of about 600 pages. It is now in its 48th year and with the three general indexes thus far published the complete set includes 51 volumes. The original edition was 500, later increased to 750, and is now about 2100 copies, of which 10 per cent are distributed to public libraries in the United States and foreign countries. Back numbers are consulted for special reference purposes. Each volume contains a list of the members with full names and addresses, each fifth volume a list of deceased members, and that for 1930 gives references to biographies of about 400 members, while reviews are used by dealers and others to ascertain prices, data, and other information regarding ornithological publications.

To secure as wide distribution of "The Auk" as possible, especially to libraries which preserve it for reference, lists of complete sets are published from time to time (see Auk, 1929, p. 584) and also lists of public libraries in which the journal may be found with the number of volumes in each (see Auk, 1930, p. 609).

The Union assists libraries, public and private, in building up their sets by maintaining a list of 40 or 50 libraries which need certain volumes to complete their series and advising them from time to time where these volumes may be obtained. While complete sets can no longer be furnished, the Union keeps a record of those which change hands, those which come on the market, and endeavors to secure copies of rare numbers now out of print. As a result of this activity much interest has been developed in building up sets. About half of the original edition published nearly 50 years ago may be found in the 250 sets now known and the value of such sets has practically doubled in the last 10 years.

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INDEX-NUMBERS OF PRICES OF AGRICULTURAL PRODUCTS

The international Institute of Agriculture, Rome, has recently published in Rome a methodological study having the object of explaining the purposes and procedures adopted in many countries in the construction of the different series of index numbers and therefore their significance. This documentation presents a scientific and practical interest to all those occupied in the study and use of index numbers of prices of interest to the agriculturist.

This publication of the International Institute of Agriculture also contains tables in which are grouped all the data available for a series of years, as far as possible from January, 1921 to December, 1929, concerning index-numbers of prices of agricultural products and other price-indices of interest to the farmer.

The Institute publishes periodically in its "Monthly Crop Report and Agricultural Statistics" the index-numbers which are available in many countries of the world. (International Institute of Agriculture announcement)

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New Hampshire

"The Librarian of the University of New Hampshire was glad to read in the latest 'Agricultural Library Notes' that another librarian thinks Department Bulletin 1199 should be indexed. What does the U. S. Department of Agriculture Library think? Has the U. S. Department of Agriculture Library any intention of attempting this? Would it be of any help for the librarian of each station to index his bulletins and send the index to Washington for printing?

"The Librarian of the University of New Hampshire asks further whether there is any necessity for the present abundance of various series classifications of station literature. He understands the distinction between a circular and a bulletin is a sacred cow, but so far he has been given no reason, save that of number of pages.

"Another librarian wanted circulation figures. Here are ours for three years. We are a town library as well, hence the juvenile figure. The Reserved Book figure is for books loaned overnight. We keep no record of Reserved Books used in the building.

	Reserved Books	Juvenile	Grand Total
Apr. 1928 - Mch. 1929	3439	2410	35,521
Apr. 1929 - Mch. 1930	3271	2630	35,883
Apr. 1930 - Mch. 1931	4253	3134	41,545

W. W. Shirley,
Librarian"

Reply by Miss C.L. Feldkamp, Librarian, Office of Experiment Stations, U. S. Department of Agriculture.

"It is agreed that it would be most desirable to have a subject index to Department Bulletin 1199. When the manuscript to this bulletin was first prepared, it included the circulars and many valuable notes but when submitted for publication the circulars and notes had to be omitted. Indexing is not an easy task and with forty-eight librarians working on one index we fear that there would not be much uniformity. There is a great demand for Bulletin 1199 and its supplements. It is believed that an index to this bulletin and supplement 1 could be prepared by the end of 1932 provided the present number of our staff could be maintained. It would be most desirable if Bulletin 1199 and its supplements could be combined into a single publication.

We also agree with Mr. Shirley that it would be very helpful not to have so many series in the station publications. However, this is a matter for the directors of the various state experiment stations to act upon. Last year at the meeting of the Association of Agricultural Editors Mr. A.A. Jeffrey, of Missouri, said that the publication of station work was presenting a real problem to the station directors. His comments are recorded in the Experiment Station Record, vol. 63, p. 700. We regret very much that stations are now issuing mimeographed publications."

Texas

"A literary venture undertaken several months ago by the Texas agricultural association has begun to assume definite shape. The association's committee, named last January to begin forming an agricultural library, will this month make definite announcement of its progress in saving for posterity valuable source material, manuscripts, diaries, farm and ranch records. The idea of this library is said to be original and was inspired by T. C. Richardson, field editor of "Farm and Ranch", an agricultural publication. Mr. Richardson has spent several years gathering material for an agricultural history of Texas, which he expects to publich next year. The library, to which he is contributing his own material, is being formed under his direction and ultimately will be presented to the state. In addition to Mr. Richardson's collection, the collections of two horticulturists of international reputation have already been obtained. One of these is the library and papers of T. V. Munson, who saved the vineyards of France from phylloxera, a pest carried there from the United States. The other is the collection of Gilbert Onderdonk, whose classification of the peach family is now the standard of the Department of Agriculture." (Publishers' Weekly, May 9, 1931, p. 2334, vol. 119, no. 19)

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MISCELLANY

The U. S. Department of Agriculture issued in April, 1931, a "Supplement to Crop Reporter" which contains crop reports for June, July and August, 1913. These crop reports were prepared and released on the dates stated on each but were never issued in printed form as a part of the permanent records of the Department of Agriculture owing to the discontinuance of the Crop Reporter in June, 1913. The reports are now printed in this form to complete the permanent record of crop reports from their beginning in 1899 to the present date, April, 1931. This pamphlet should be inserted in the bound volumes of the Crop Reporter at the end of volume 15, no. 6, June, 1913.

The Brooklyn Botanic Garden Record for May, 1931, is devoted to the rock garden and contains a selected list of books on rock gardens and alpine plants.

After more than half a century in the U. S. Department of Agriculture, Dr. Leland O. Howard, formerly Chief of the Bureau of Entomology, retired from the service on June 30. Doctor Howard's contributions to the literature of science exceed 1050. He will go to Paris this summer to be near the great French libraries while writing new books on insect life. Doctor Howard has recently received the Capper Award for distinguished service to agriculture.

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Problems of International Bibliography from the Viewpoint of a Special Library. By Dr. Sigmund von Frauendorfer, International Institute of Agriculture. Rome, International Institute of Agriculture, [1931] 16 p.
Mimeographed.

Materiaux d'une Bibliographie de la Politique Agraire, et des questions historiques, economiques, juridiques et techniques y relatives. Par Stanislas Stempowski. Warsaw, Druk S. Jabloński, 1931. (Publication du Ministère des Reformes Agraires, Fasc. II)
Published also in Polish.

Union List of Periodicals in Special Libraries of the New York Metropolitan District. Edited by Ruth Savord, Librarian, Council on Foreign Relations, and Pearl M. Keefer, Indexer and Cataloger. Published for the New York Special Libraries Association by the H. W. Wilson Company, New York. 238 p.
"This Union List is designed primarily for the Use of the librarians of special collections in helping them to locate a file of a specific periodical which they may need in their work."

A Bibliography of Social Surveys. Reports of fact-finding studies made as a basis for social action; Arranged by subjects and localities. Reports to January 1, 1928, by Allen Eaton, Department of Surveys and Exhibits, in collaboration with Shelby M. Harrison, Director, Department of Surveys and Exhibits, Russell Sage Foundation. 467 p. New York, Russell Sage Foundation, 1930.
Contents: Introduction, Development and Spread of Social Surveys; Part I. General Social Surveys; Part II, Surveys in Specialized Fields; Part III, Publications on Purpose, Method, and Standards in Surveys; Part IV, Geographical Index, Surveys Classified by Localities.

A London Bibliography of the Social Sciences. Being the subject catalogue of the British Library of Political and Economic Science at the School of Economics, the Goldsmiths' Library of Economic Literature at the University of London, the Libraries of the Royal Statistical Society and the Royal Anthropological Institute, and certain special collections at University College, London, and elsewhere. Compiled under the direction of B. M. Headicar, Librarian of the British Library of Political and Economic Science, and C. Fuller, Assistant Librarian, with an introduction by Sidney Webb (Lord Passfield). Volume II - G-O. 940 p. London, The London School of Economics and Political Science, 1931.

British Museum General Catalogue of Books. New ed. London & Eccles, William Clowes and Sons, Ltd., 1931.
Vol. I. A-Aeg. 1003 p.
About eight or ten volumes of the new edition of the catalogue will be issued each year and it is estimated that it will require about eight years to complete the catalogue.

California. An Index to the State Sources of Agricultural Statistics. Part I. Fruits, vegetables and nuts; Part II. Crops other than fruits, vegetables and nuts; Part IV. Land, farm property, irrigation, and miscellaneous items. Compiled in the library of the Bureau of Agricultural Economics, U. S. Department of Agriculture. (Agricultural Economics Bibliography No. 31) Mimeographed.

Wheat: Cost of Production, 1923-1930. References relating to the United States and some foregin countries. Compiled by Louise O. Bercaw, Library, Bureau of Agricultural Economics, U. S. Department of Agriculture. Jan. 1931. 33 p. mimeographed. (Agricultural Economics Bibliography no. 33)

List of Publications of the Department of Agricultural Economics, 1924-1930. With List of Publications of A. W. Ashby, 1912-1924. Department of Agricultural Economics, University College, Aberystwyth. [no date] 11 p. Mimeographed.

Bibliography on the Biology of the Fleece. Imperial Bureau of Animal Genetics. 32 p. Edinburgh, Oliver & Boyd, Ltd., 1931.
This bibliography was prepared for the Imperial Wool Conference, 1930, and does not contain any references later than 1929.

A Bibliography on Soil Erosion. Compiled by Dorothy J. Wilks, Librarian, Division of Agricultural Engineering, U. S. Dept. of Agriculture. 26 p. Typewritten.

The Genetics, Breeding and Improvement of Corn and Cotton. A bibliography covering more than forty years work (1889-1929) in the breeding, improvement, and study of inheritance in corn and cotton (with many abstract references). By C. K. McClelland, University of Arkansas. 24 p.
"The publications listed cover the period of transition from the old ideas as to plant breeding to the modern thought as initiated by Mendel and expanded by various research workers since Mendel's time." The arrangement is chronological-alphabetical.
The references on each subject have also been published separately.

Breeding Varieties Resistant to Disease. The Imperial Bureau of Plant Genetics, School of Agric., Cambridge, Eng., 43 p. 1930. Mimeographed.
Contents: - Resistant Grape Vines; Other Crops; Rust Resistance; Fusarium; Anthracnose; Helminthosporium; Smudge Diseases; Bacterial Diseases; Mildew; Phytophthora, Synchytrium, etc.; Root Rots; Diseases due to Unknown Causes, Virus, etc.; Animal & Insect Pests; Other Diseases.
A list of the more important works dealing with the actual genetics of each section is appended.

A Guide to the Literature on Rubber. U. S. Bureau of Standards, Department of Commerce, Washington, D. C. April 21, 1931. 13 p.
Mimeographed. Contents: Introduction; Books on rubber; Reviews on rubber; Periodicals devoted primarily to rubber; Abstracts of pulbications on rubber; General periodicals in which some papers on rubber are published; Special publications on rubber.

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The South Carolina Agricultural Experiment Station. A brief history, 1887-1930. By G. H. Aull. 63 p. il. Clemson College, S. C., South Carolina Agric. Exper. Station, Dec. 1930. (Circular 44)

Agriculture in New Jersey. By Carl R. Woodward, Assistant to the President, Rutgers University, New Jersey. 144 p. il. New York, American Historical Society, Inc., 1930. (Reprinted from "New Jersey - A History")

The agricultural history of New Jersey has been divided into four periods, characterized by certain economic trends: 1630-1775 - Colonial Times: A Period of Settlement-Agriculture established as the basic industry; 1775-1810 - The Revolution and the Beginning of Independence: A Period of Economic Disturbance and Reconstruction; 1810-1860 - The Industrial Revolution; A Period of Expansion and Agricultural Improvement; 1860-1930 - From the Civil War to the Present; A Period of Applied Science and Specialization.

A History of Fruit Growing in Pennsylvania. I. The Colonial Period (1623-1827). By S. W. Fletcher, Professor of Horticulture, The Pennsylvania State College. 26 p. il. (Reprinted from the Proceedings of the Seventy-second Annual Meeting of the State Horticultural Association of Pennsylvania, January, 1931).

The Story of Standard Making. The birth of standard bred poultry in America. Including the official verbatim stenographic report of the "Poultry Convention of 1871" which adopted the first "American Standard of Excellence" two years before the first American poultry association edition was adopted. Compiled by Bruce W. Ulsh, Editor of "The Golden Buffs." 69 p. il. New Albany, Ind., Bruce W. Ulsh, 1931.

The verbatim stenographic report of the Poultry Convention of 1871 is reprinted from the Rural New Yorker for 1871.

Johnny Appleseed and his Time. An Historical Romance. By Henry A. Pershing. With Illustrations from Photographs, Woodcuts, Scenes of his Wanderings, his Autograph, with Many Other Interesting Pictures. First complete biography of him ever printed. 379 p. Strasburg, Virginia, Shenandoah Publishing House, Inc., 1930.

Proceedings of the Celebration of the Three Hundredth Anniversary of the First Recognized use of Cinchona, held at the Missouri Botanical Garden, St. Louis, October 31-November 1, 1930. 258 p. St. Louis. 1931.

Systematic Source Book in Rural Sociology. Edited by Pitirim A. Sorokin, Professor of Sociology, Harvard University, Carle C. Zimmerman, Associate Professor of Sociology, University of Minnesota, and Charles J. Galpin, Chief, Division of Farm Population and Rural Life, U. S. Department of Agriculture. Vol. II. 677 p. Minneapolis, Univ. of Minnesota Press, 1931.

In volume I of this work, the ecological and morphological aspects of rural social organization were considered. The second volume deals with the rural social world from the point of view of its institutional, functional, and cultural characteristics.

The Principles of Potato Production. A practical guide to the cultivation, harvesting, storing, marketing and shipping of potatoes. By E. L. Nixon, Professor of Plant Pathology, The Pennsylvania State College. 123 p. il. New York, Orange Judd Pub. Co., 1931. (Farm and garden library)

Productive Dairying. By R. M. Washburn, Director, Dairy Products Institute. 4th ed., rev. 438 p. il. Philadelphia, J. B. Lippincott Company, 1931.

"This revision has been even more thorough than any previous one and brings all matter down as closely to date as it can be in a field of continuous progress." Job analyses have been added to this edition, and seasonal project suggestions are made in the appendix.

The Elements of Live Stock Judging. By William W. Smith, Professor of Animal Husbandry, Purdue University. 2d ed. rev. 151 p. il. Philadelphia, J. B. Lippincott Company, 1930. (Farm Enterprise Series)

The previous edition contained 147 pages.

Raising Ducks for Profit. 7th rev. ed. of Rankin's Duck Culture. Edited and revised by Roy E. Pardee, Islip, L. I., New York. 46 p. Springfield, O., The Cory-Keim Pub. Co., 1930.

The Embryology of the Pig. By Bradley M. Patten, Associate Professor of Histology and Embryology, School of Medicine, Western Reserve University. 2d ed. 327 p. il. Philadelphia, P. Blakiston's Son & Co., 1931.

In this new edition effort has been concentrated on improving the presentation of the original subject matter rather than on its expansion. A few sections have been altered on account of recent contributions to these particular subjects.

Nut Growing. By Robert T. Morris. 2d rev. ed. il. 236 p. New York, Macmillan Company, 1931.

"This new edition is brought thoroughly up to date and contains many points of new interest." (Publisher's note)

The Gardener's Year. By Karel Capek. Translated from the Czech by M. and R. Weatherall. 159 p. il. New York, G. P. Putnam's Sons, 1931.

"With a gentle and impish humor ... describes the trials, labors, joys and meditations of the amateur horticulturalist throughout the year."

Rock Garden Primer. By Archie Thornton. 132 p. il. New York, A. T. De-La Mare Company, 1931.

"Covers conditions for the temperate region of America, and is written with particular regard for the benefit of those who require information on every minute point connected with the making of a rock garden."

The Rock Garden Book. Its construction and care. Written for Better Homes and Gardens by Franz A. Aust and Hazel Hankinson. 63 p. il. Des Moines, Ia., Meredith Pub. Co., 1931.

American Alpines in the Garden. By Anderson McCully. 251 p. il. New York, The Macmillan Company, 1931.

"Covers this new field of gardening with practical facts and first hand observation of the plants themselves, and tells just how to grow them successfully in the garden."

Our Native Cacti. By Ethel Bailey Higgins. 170 p. il. New York, A. T. De La Mare Co., 1931.

A non-technical book which will be found useful by the amateur grower of cacti.

Landscape Gardening. By O. C. Simonds. 338 p. il. New York, The Macmillan Company, 1931. (Rural Science Series)

"This is a basic book on beautification of the landscape - the preservation of natural beauties and their skilful adaptation and development, not only in home grounds but in public areas, such as highways, railway stations, parks, cemeteries, arboretums, and school grounds." (Publishers)

Garden Clubs: Their Activities and Organization. By Florence C. Speller. 159 p. il. New York, The Mohawk Press, 1931.

In addition to the chapters on organization, management, by-laws, flower shows, etc., information is given on planting, conservation and landscape gardening. A chapter is also devoted to the origin of garden clubs.

The Historic Gardens of Virginia. Compiled by the James River Garden Club. Edited by Edith Tunis Sale. Rev. ed. 376 p. il. Richmond, Va., The James River Garden Club, 1930.

"In considering the revised edition of Historic Gardens of Virginia, the James River Garden Club was guided by the numerous changes in ownership, restorations, and more than all, the opening of old gardens inaccessible when the book was originally published and whose histories lend added interest."

Homes and Gardens in Old Virginia. Edited by Susanne Williams Massie and Frances Archer Christian, with an Introduction by Douglas S. Freeman. [ed. 4] il. 355 p. Richmond, Garrett & Massie, Inc., 1931.

"The fourth edition contains historical sketches of various places of significance in the annals of Virginia which could not be included in the earlier editions, because they were not among the places then open to visitors. The volume is not a guidebook merely, but is intended to be a convenient book of reference which may be consulted by those who wish to recall the principal facts associated with the outstanding homes in the State. Sketches of many public buildings of peculiar importance have been included in the text." (Author's Preface)

Principles of City Planning. By Karl B. Lohmann, Professor of Landscape Architecture, University of Illinois. 395 p. il. New York, McGraw-Hill Book Co., 1931.

Discusses the principles and problems involved not only in the design of new cities but also in the improvement of existing communities.

Descriptive Gladiolus Nomenclature. Compiled by Alfred M. S. Pridham. 129 p. American Gladiolus Society, 1931.

Includes in addition to the name of the variety, the name of the originator or of the introducer; date of introduction; type of flower; its general color; its conspicuous markings; relative season of bloom, and the Registration Number if it has been registered by the American Gladiolus Society.

Heredity. By A. Franklin Shull, Professor of Zoology in the University of Michigan. 2d ed. 345 p. il. New York, McGraw-Hill Book Company, 1931.

"This revision has been made necessary by the rapid acquisition of new knowledge in the field of genetics, partly with reference to its applications, but also in its purely scientific aspects. The new work has been incorporated wherever it altered present concepts or practice in any important way, provided it fell within the scope chosen for this book."

Plant Physiology. With reference to the green plant. By Edwin C. Miller, Professor of Plant Physiology, Kansas State Agricultural College. 900 p. il. New York, McGraw-Hill Book Company, 1931.

Written to meet the need for an advanced text in plant physiology. In his preface the author says: "The various texts by European investigators and teachers, while summarizing the work that has been done on the continent, have failed to cover adequately the contributions of American and English physiologists. These contributions during the past two decades have been outstanding and dominate in many cases the work along certain lines ... It has been the intention of the author to bridge this gap in the literature and to summarize in this book the more important findings of English, American, and continental plant physiologists."

Chemistry for Students of Agriculture and Home Economics. By Robin Charles Burrell, Assistant Professor of Agricultural Chemistry, The Ohio State University. 459 p. il. New York, McGraw-Hill Book Company, 1931.

"Designed to develop a good understanding of the fundamental facts and theories of chemistry as a whole, with emphasis throughout on their application in practical everyday affairs."

The Bobwhite Quail; Its Habits, Preservation and Increase. By Herbert L. Stoddard, Bureau of Biological Survey, U. S. Department of Agriculture. 550 p. il. New York, Charles Scribner's Sons, 1931.

Comprises the essential information gained during more than five years' research into the problem. The investigation was financed by a group of public-spirited sportsmen and conducted by the Bureau of Biological Survey of the U. S. Department of Agriculture.

The Nature Almanac. A handbook of nature education. 399 p. il. Washington, D. C., The American Nature Association, 1930.

Outlines of Agricultural Economics. By Henry C. Taylor. Rev. Ed. 614 p. New York, The Macmillan Company, 1931. (Social Science Text-Books, edited by Richard T. Ely)

"Revised to conform to important progress which has taken place in the field of cooperation, the federal agricultural marketing services, and particularly with respect to the new public policies relating to the share of agriculture in the national income." (Author's Preface)

Illinois Agricultural Adjustment Conferences, November, 1930. Central theme, adjusting production to demand. Abstracts of papers and other materials prepared for use of leaders and committee members. 128 p. Urbana, Univ. of Ill., College of Agric., Agric. Exper. Sta., and Ext. Service, 1930. (Mimeographed)

Marketing of Farm Products. Principles and Problems for Students of Vocational Agriculture. By L. J. Norton, Assistant Professor of Economics and Assistant Chief in Agricultural Economics, University of Illinois, and L. L. Scranton, Assistant Professor of Agricultural Education, North Dakota Agricultural College. First Ed. 315 p. Danville, Ill., Interstate Printing Company, 1931.

The book presents material that can be used by students and teachers of vocational agriculture in the study of marketing. The general aim has been to keep in mind the problems of marketing from the farmers' standpoint.

Marketing Principles. By John Freeman Pyle, Dean, and Professor of Marketing and Economics, Robert A. Johnston College of Business Administration, Marquette University.

Contains several chapters on the marketing of agricultural products.

Cooperative Handbook for 1931. The truth about the Federal Farm Board and the Cotton Cooperatives for those interested in the welfare of the South. 50 p. New Orleans, American Cotton Cooperative Association, 1931.

The Supply Area of the Chicago Livestock Market. By Edward A. Duddy, Associate Professor of Marketing, The University of Chicago, and David A. Revzan, Research Assistant. 100 p. Chicago, The University of Chicago Press, 1931.

Economic Survey of the Cottonseed Products Industry. A preliminary report made to the Board of Directors of the National Cottonseed Products Association, Inc. 22 p. New Orleans, Jan. 15, 1931. (Mimeographed.)

The Plight of Cigarette Tobacco. By T. J. Woofter, Jr., Institute for Research in Social Science, University of North Carolina. 99 p. Chapel Hill, The Univ. of North Carolina Press, 1931.

"This is a study of conditions which are extremely unfavorable to the farmer in marketing America's sixth most important crop, and of the economic forces which have created these conditions. It is an analysis of the factors which determine the price paid to farmers for leaf tobacco with special reference to the significance of these factors to a cooperative marketing program." (Preface)

The Vitamins. By H. C. Sherman and S. L. Smith. 2d. 2. 575 p. New York, Chemical Catalog Co., 1931. (American Chemical Society, Monograph Series [no. 6])

"An attempt has been made to summarize the very considerable amount of information which has been gained regarding the chemical natures of individual vitamins, and the more voluminous knowledge regarding their roles in life processes, their formation and distribution in nature, their relative abundance in different types of food materials and stability under the conditions to which they are likely to be subjected ... In general both the text and the bibliography have been brought down to about the middle of ... 1930." (Preface)

Bibliography: p. 351-533.

The 1922 edition contained 273 pages.

Nutrition and Diet Therapy. A textbook of Dietetics. By Fairfax T. Proudfit, Instructor in Nutrition and Diet Therapy, University of Tennessee School of Nursing. 5th rev. ed. 705 p. New York, The Macmillan Company, 1931.

Previous editions of this book were published under the title "Dietetics". The change in title "indicates in a measure the progress which has been made in the teaching of these subjects and covers more accurately the contents of the present volume."

Review of Essential Chemical Elements that Constitute a Balanced Food. By Charles Noyes Kinney, Professor of Chemistry in Drake University. 2d ed. 315 p. Des Moines, Iowa, Success Composition and Printing Co., 1930.

A Suggestive Budget for Families of Small Income. Prepared by the Home Economics Committee of The Associated Charities, Cleveland, Ohio, April 1930. 34 p.

The booklet was prepared to be used as an aid to case workers, in dealing with dependent families or families [illegible] of small income.

Contributions of Women's Magazines to Homemaking Problems on Food. By L. Millicent Yackey. Submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Faculty of Philosophy, Columbia University. 68 p. New York [Columbia University], 1930.

The Family in the Present Social Order. A study of needs of American families. By Ruth Lindquist. Written and published with the cooperation of the American Home Economics Association. 241 p. Chapel Hill, The University of North Carolina Press, 1931.

"Designed primarily for teachers and administrators in the field of education for marriage and parenthood though it may have additional usefulness to students of social science and to those whose work and interests are directly related to present-day family life."

Summary of the Conference of Specialists in Child Care and Training. Washington, D. C., Nov. 24-25, 1930. Report of the Secretary, Grace E. Frysinger, Extension Service, U. S. Dept. of Agriculture. 17 p. (Mimeographed)

The Book of the Lawn. A complete guide to the making and maintenance of lawns and greens for all purposes. By Reginald Beale, Manager of Sports and Grass Department, Carter's Tested Seeds, Ltd. 151 p. il. London, Cassell & Co., 1931.

Grass and Hay Farming. An economic study. By John Orr. 38 p. il. Manchester, England, Manchester University Press, 1931. (University of Manchester, Agricultural Economics)

The Midlands Grazing Industry. A study of the relative economic advantages of grazing young or old cattle. By A. Bridges, Agricultural Economics Research Institute, and Arthur Jones, Midland Agricultural College. 55 p. Oxford, Clarendon Press, 1931. (University of Oxford, Agricultural Economics Research Institute)

The Scented Garden. By Eleanour Sinclair Rohde. 312 p. London, The Medici Society, [1931].

"In this volume the author.... treats of the scent of flowers and of scented gardens. A book for both the practical gardener and for those interested in the lore of scented plants." One chapter is devoted to the history and lore of the old roses, and there are lists of trees, shrubs and climbers, herbaceous plants, bulbs, etc., for the scented garden.

Carnations for Everyman. By Montagu C. Allwood. 95 p. il. London, Country Life Limited; New York, Charles Scribner's Sons, 1931.

Deals with every phase of carnation culture.

The Practice of Soft Cheesemaking. A guide to the manufacture of soft cheese and to the preparation of cream for market. By C. W. Walker-Tisdale, Theodore R. Robinson, and W. E. Woodnutt. 5th rev. ed. 116 p. il. London, George Allen & Unwin, Ltd., 1930.

Bacteriological Control of Milk. A practical guide for media preparation and milk testing. By A. G. House, The National Institute for Research in Dairying, University of Reading. With a foreword by Prof. R. Stenhouse Williams. 59 p. il. Cambridge, University Press, 1931.

The Farmer's Business. Comparative conditions in part of South Oxfordshire in 1923 and 1929. By R. H. Dixey, assisted by W. H. Jones and P. M. Reason. 27 p. Oxford, Clarendon Press, 1931. (University of Oxford, Agricultural Economics Research Institute)

The Marketing of Farm Produce. Part III. Hops. By D. Shilback, Agricultural Economics Research Institute, University of Oxford. 59 p. Oxford, Clarendon Press, 1931.

Part I of this series was on livestock and part II on milk.

Factors affecting the prices of livestock in Great Britain. A preliminary study. By K. A. H. Murray. 180 p. Oxford, Clarendon Press, 1931. (University of Oxford, Agricultural Economics Research Institute)

Encyclopédie Agricole Quillet. 3 v. Paris, Librairie Aristide Quillet, 1931.

L'Evoluzione della Zootecnia. Attraverso i secoli. Compendio storico e bibliografico. By Dott. Bruno Bianchini. 315 p. Terni, Stabilimenti Poligrafici Alterocca, 1930.

This history of animal breeding is divided into two parts, the first of which takes up prehistoric times and ancient countries - Arabia, Egypt, Phoenicia, Chaldea, Palestine, Persia, India, China, Africa, Anatolia, Thibet, and Greece. The second part is devoted almost entirely to Rome and Italy, this subject being treated on p. 61-68. Only the few pages from p. 269-297 are given to other countries. Authorities for the statements are given in footnotes and there is an index of names of authors cited.

Atlas International Zootechnique. I. Atlas International des Bovins. Suisse, Allemagne, Hongrie, Pays-Bas. Rome, International Institute of Agriculture, 1930.

Fünfundzwanzig Jahre Mutationstheorie. Vortrag, gegen Jahresschluss 1929 für die Mitglieder der wissenschaftlichen Gesellschaft Diligentia im Haag. Von Dr. Theo J. Stomps, Professor der Botanik an der Universität Amsterdam. 68 p. Jena, Verlag von Gustav Fischer. 1931.

In celebration of the 25th anniversary of the publication of Hugo de Vries' work on the mutations theory.

Handbuch der Milchwirtschaft. Band II. Teil 2. Butter, Käse, Milchpreparate und Nebenprodukte. Bearbeitet von A. Burr, Kiel; K. J. Demeter, Weihenstephan/München; W. Grimmer, Königsberg; F. Löhnis, Leipzig; O. Rahn, Ithaca, N. Y., F. Treidtel, Altona; H. Weigmann, Kiel. 470 p. il. Wien, Verlag von Julius Springer, 1931.

Soviet Beet Seed Growing. Edited by Ukrainian Research Institute of Sugar Industry, Kiev. 39 p. il. Kiev, Ukrainian Research Institute of Sugar Industry, 1931.

Der Weinbau in den Vereinigten Staaten von Amerika. Inaugural dissertation zur Erlangung der philosophischen Doktorwürde der Philosophischen und Naturwissenschaftlichen Fakultät der Westfälischen Wilhelms-Universität zu Münster i. W. vorgelegt von Hans Lübker. 128. p. Emsdetten i. Westf., Gedruckt beir Heinr. & J. Lechte, 1930.

L'Organisation Scientifique du Travail Agricole en Europe. 170 p. Rome, Imprimerie de la Chambre des Députés Charles Colombo, 1930. (Institut International d'Agriculture).

Les Assurances Sociales et l'Agriculture. By Henri Digard, Docteur en Droit, Diplome des Sciences Politiques, Avocat a la Cour d'Appel. Préface de Pierre Cathala, Sous-Secretaire d'État au Ministère du Travail. 106 p. Paris, Librairie du Recueil Sirey (Société Anonyme), 22, Rue Soufflot, 1931.

FOREIGN AGRICULTURAL BOOKS
(Cont'd)

Breeding Varieties Resistant to Disease. The Imperial Bureau of Plant Genetics, School of Agriculture, Cambridge, England. 43 p. [no date] (Mimeographed)

The Principles of Plant Biochemistry. Part I. By Muriel Wjeldale Onslow, University Lecturer in Plant Biochemistry, Cambridge. 326 p. Cambridge, University Press, 1931.

Intended for the student and for the beginner in research, and deals only with the higher plants.

BOOKS ON FORESTRY

Afforestation in Southern Lands. Dealing specially with location as to market, system and methods of planting, sylvicultural treatment and species most suitable for southern lands. By E. Maxwell, Consulting Forester. 315 p. il. London, Whitcombe & Tombs, Ltd., n.d.

Deals only with the planting and cultivation of exotic trees in New Zealand, and chiefly with those introduced from California and Australia.

Sylviculture. Manuel pratique a l'usage des proprietaires fonciers, des regisseurs de domaines forestiers, des reboiseurs et des élèves des ecoles d'agriculture. Par A. Jacquot, Professeur de Sylviculture au Lycée de Chaumont. 333 p. Paris, J. B. Baillière et Fils, 1931.

Estudio sobre la Vegetación Forestal de la Provincia de Cádiz. Trabajo que se publica como complemento al Mapa Forestal de la Misma, por Luis Ceballos y Manuel Martin Bolanos, Ingenieros de Montes de Instituto Forestal de Investigaciones y Experiencias. Prologo de Eladio Romero, Ingeniero Asesor del Mismo Instituto. 343 p. il. La Monçloa, Madrid, Instituto Forestal de Investigaciones y Experiencias, 1930.

Über den Forstlichen Wirtschaftsplan und Seine Grundlagen. Von Dr. Hans Wodera. 103 p. Wien, Verlag von Carl Gerold's Sohn, 1930.

Forsten und Forstwirtschaft Finnlands. Eine forstlich-ökonomische Studie. Von Dr. Herbert Jugel. 291 p. Greifswald, Verlag Ratsbuchhandlung L. Bamberg, 1930.

Künstliche Holztrockmung. Ein Grundriss von Dr.-Ing. Fr. Moll. 101 p. il. Berlin, Verlag von Julius Springer, 1930.

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Proceedings of the Second International Conference of Agricultural Economists. Held at Cornell University, Ithaca, New York, August 18-29, 1930. 1072 p. Menasha, Wis., George Banta Publishing Company, 1930.

In his opening address Prof. G. F. Warner made the following remarks: "Agriculture is going through a revolution comparable to the industrial revolution. Farming that follows tradition was never before so out of adjustment with what is needed. National policies respecting agriculture which are based on past experiences were never before so out of line with the needs of the times. Research work must be pushed actively. National and international conferences are needed for the presentation of results of research, for the guidance of future research, and for the stimulus for renewed activity which comes from discussion." The papers by outstanding agricultural economists which are included in this volume are important contributions to the solution of the problems confronting present day agriculture.

Proceedings of the Lime Conference Held at the University of Tennessee, Agricultural Experiment Station, Knoxville, Oct. 6-8, 1930. 63 p. [Knoxville] The Keith Press [1931].

Proceedings of the Fourth Pacific Science Congress, Java, 1929. Batavia-Bandoeng, Maks & Van der Klits, 1930.

Vol. I. General part and reports on oceanography; Vol. II. Physical papers; Vol. III. Biological papers; Vol. IV. Agricultural papers.

IX International Horticultural Congress, London, Aug. 6-15. By the invitation of the Royal Horticultural Society and under the auspices of the International Committee for Horticultural Congresses. Report and Proceedings. 401 p. il. London, The Royal Horticultural Society [1931].

Imperial Wool Research Conference, 1930. London, Leeds, Edinburgh. Report of Proceedings. 107 p. London, H. M. Stationery Office, 1931.

The International Dairy Congress in Copenhagen, July 14th - 17th, 1931. Programme of journeys and excursions, particulars regarding hotel accommodation etc. Copenhagen, February 1931. 40 p.

XIVeme Congres International d'Agriculture, Bucarest, 7,8,10 Juin, 1929. Actes. Deuxième volume. Rapports Principaux et Rapports. 716 p. Bucarest, Cultura Nationala.

These transactions are to be published in four volumes. Volumes 3, 4 and 1 will appear later in the order given.

Actes de la Conférence Diplomatique Internationale pour la Protection des Dénominations des Fromages et l'Unification des Méthodes d'analyse. Rome, 5-10 Juin, 1930. 155 p. Rome, Institut Internationale d'Agriculture, 1930.

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NOTES ON PERIODICALS

New

American pomology. Secretary, H. L. Lantz, Station A, Ames, Iowa. quar. 4°. vol. 1, no. 1, Jan. 1931. Membership in American Pomological Society, including subscription to American pomology, $1.00 a year.

American rabbit journal. Columbia, Mo. 4°. mo. vol. 1, no. 1, June, 1931. 50¢ a year.

Association of Hawaiian pineapple canners. Pineapple quarterly. Experiment station, A. H. P. C. P. O. Box 3166, Honolulu, Hawaii. quar. il. vol. 1, no. 1, Apr. 1931.

Journal of science of the Hiroshima university. Series B, div. 2 (Botany). Maruzen co., ltd., 6, Torinichome Nihonbashi-ku, Tokyo. vol. 1, art. 1, Dec. 1930. Price varies with publications.

The rabbit raiser. 229 Temple Court bldg., Denver, Col. mo. f°. il. vol. 1, no. 1, Jan. 1931. $1.00 a year.

Changed

Keith's beautiful homes magazine. Chicago. Changed to Beautiful homes magazine with vol. 64, no. 2, Jan. 1931.

North British agriculturist. Edinburgh. With vol. 83, no. 14, Apr. 2, 1931, amalgamated with Farming news and continued as North British agriculturist and farming news.

Nor'west farmer. Winnipeg, Manitoba. Combined with Farm and home and formed Nor'west farmer and farm and home. With vol. 50, no. 1, Jan. 5, 1931.

Reliable poultry journal. Dayton, O. Changed to The new reliable poultry journal with vol. 38, no. 4, June, 1931.

Southern lumberman. Nashville, Tenn. Combined with Lumber trade journal May 15, 1931, vol. 143, no. 1803, and continued as Southern lumberman with which is combined the lumber trade journal.

Ceased

Farm and home. Vancouver. Discontinued with v. 12, Dec. 15, 1930. Combined with Nor'west farmer and formed Nor'west farmer and farm and home.

Lumber trade journal. New Orleans. Discontinued with vol. 99, no. 9, May 1, 1931. Combined with Southern lumberman and formed Southern lumberman with which is combined the Lumber trade journal.

Reliable rabbit journal. Los Angeles, Calif. Discontinued with vol. 6, no. 9, May, 1931. Combined with Successful rabbit breeding.

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WANTS

The following publications are needed by the Library of the U. S. Department of Agriculture:

American Farm Bureau Federation, Weekly News Letter, vo. 8, nos. 1-18, inclusive, 30; vol. 10, no.13.

The Serials Division of the Public Library, Los Angeles, California, wishes to obtain a copy of Bulletin 276 of the Missouri Agricultural Experiment Station.

The Agricultural Library of the Pennsylvania State College, State College, Pennsylvania, desires the following publications:

Ice Cream Trade Journal, vol. 14, no.12; indexes for volumes 13 and 14.
Peninsula Horticultural Society, Report, 2d, 8th, 11th.
Potato Association of America, Proceedings, 15th meeting, 1928.

OFFERS

The U. S. Department of Agriculture Library has the following publications for exchange.

Books

Armsby, H. P. The conservation of food energy. 1918.
International botanical congress. Cambridge, Eng., 1930. Abstracts of communications.
List of plants collected and identified in and about Grand Rapids. 1896.

Periodicals

The American Botanist, v. 1,2,3,4,5,6,7,8; v. 9, nos. 2-6; v.10; v. 11, nos. 1-5; v.12, nos. 1-5; v. 13, nos. 1-5; v. 14, nos. 1-4; v. 15, nos. 1-4; v. 16, nos. 2-4; v. 19, no. 1. Contents to v. 10.
The Asa Gray Bulletin, no. 2, 1893 (3d quarter); no. 3. 1893 (4th quarter); no. 4, 1894 (1st quarter); no. 5, 1894 (2d quarter); no. 7, 1894 (4th quarter); v. 3, nos. 8-11; v. 4, nos. 1-4; v. 5, nos. 1-6; v. 6, nos. 1-5.
The Fern Bulletin, v. 5, no. 2-4; v. 6, no. 1; v. 13, no.1; v.15, no.1.
The Plant World, v. 1, no. 3; v. 4, no.12; v. 5, no. 1-2.

For Sale

The U. S. Department of Agriculture offers the following:

Diccionario de Agricultura, Zootecnia y Veterinaria. Tome 1, fasc. 1-3 Barcelona. $10.00.
Hardy and Half-Hardy Plants. Vol. 1. Illustrations and descriptions of beautiful and interesting plants suitable for outdoor culture in the Britidh Isles. 1930. $8.00 (Vol. 2 in progress)

The Oregon State Agricultural Library has for sale a copy of "A treatise on the improved culture of the strawberry, raspberry and gooseberry", by Thomas Haynes. 2d ed. London, 1814.

SELECTED LIST OF MIMEOGRAPHED PUBLICATIONS
of the U. S. Department of Agriculture
issued during May-June, 1931, exclusive of current issues of serials.*

Laws and regulations administered by the United States Department of Agriculture, governing the importation into the United States of food, drugs, plants, animals, and plant and animal products, etc. May, 1931.

Bureau of Agricultural Economics

California; an index to the state sources of agricultural statistics. Part I. - Fruits, vegetables and nuts: an index to the official sources; compiled by Louise O. Bercaw. Agricultural economics bibliography no. 31, Part I, section 2. (Issued by Library)

Estimated numbers of apple trees by varieties and ages in commercial orchards in Kansas. January 1, 1928. A part of an economic stury of the apple industry of the United States. Preliminary. April, 1931. (Issued by Division of crop and livestock estimates, in cooperation with Kansas state board of agriculture)

Estimated numbers of apple trees by varieties and ages in commercial and farm orchards in New York. January 1, 1928. A part of an economic study of the apple industry of the United States. Preliminary. (Second issue - includes spraying and acreage information)

Estimated numbers of apple trees by varieties and ages in commercial and farm orchards in Utah, January 1, 1928. A part of an economic study of the apple industry of the United States. Preliminary. (In co-operation with Utah state department of agriculture, and the Utah agricultural experiment station)

Farm prices of cotton related to quality, Arkansas crop - season 1928-29. A preliminary report. By L. D. Howell. April, 1931. 23 p. (Issued by Division of cotton marketing)

Farm prices of cotton related to quality, Oklahoma crop - season 1928-29. A preliminary report. By L. D. Howell. 23 p. (Issued by Division of cotton marketing)

Grade and staple of Alabama cotton, crops of 1928 and 1929. A preliminary report. 14 p. (Issued by Division of cotton marketing)

Grade and staple of Arkansas cotton, crops of 1928 and 1929. A preliminary report. By W. B. Lanham and J. L. McCollum. April, 1931. 15 p. (Issued by Division of cotton marketing)

Grade and staple of South Carolina cotton, crops of 1928 and 1929. By W. B. Lanham... and R. E. Betts. 15 p. (Issued by Division of cotton marketing)

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*For a list of the principal series issued regularly, see v. 4, no.102, p. 347.

Bureau of Agricultural Economics
(Cont'd)

Information issued by the Bureau of agricultural economics of direct use to wholesale and retail trade. 4 p.

Marketing western New York lettuce; summary of the 1930 season. By A. L. Thomas. May, 1931. 26 p. (Issued by Division of fruits and vegetables)

The 1930 wheat movement as affected by recent trends in marketing. A preliminary report. By Carlos E. Campbell. 1931. 17 p. (Issued by Division of statistical and historical research)

The Ohio farm bureau federation from the farmers' viewpoint. A preliminary report. By T. B. Manny and R. C. Smith. 115 p. (Issued by Division of farm population and rural life)

The operation problems of state-federal shipping point inspection. By R. C. Butner. 5 p. (Issued by Division of fruits and vegetables)

The purpose and preparation of the Agricultural outlook. By Lawrence Myers. 8 p. (Issued by Division of Statistical and historical research)

Shifts in production areas in the United States induced by changes in farm prices and farm technique. By C. L. Holmes. (Issued by Division of farm management and costs)

U. S. Standards fof fresh Faba (Fava) beans (1931). 2 p.

U. S. Standards for red sour cherries for manufacture (1931). 2 p.

Bureau of Animal Industry

Studies of various culture media for growing Salmonella pullorum, and some comparative agglutination tests and antigens grown on same. By Hubert Bunyea. (Issued by Pathological division)

Bureau of Chemistry and Soils

An index of patented mothproofing materials. By R. C. Roark. 125 p. (Issued by Insecticide division)

Selected references on iodine. Comp. by V. A. Pease. 14 p. (Issued by Food research division)

Trend of fertilizer practice with reference to citrus culture in Florida. By J. J. Skinner... 5 p. (Issued by Soil fertility investigations)

Bureau of Entomology

An estimate of the damage by some of the more important insect pests in the United States. By J. A. Hyslop... 21 p. (Issued by Insect pest survey)

SELECTED LIST OF MIMEOGRAPHED PUBLICATIONS

Extension Service

Classification scheme for illustrative material; visual instruction and editorial work. 153 p. (Issued by Office of cooperative extension work)

Effectiveness of extension work with farm home kitchens; a study of 280 farm homes in McCracken and McLean counties, Kentucky, 1930. By M. C. Wilson, May A. Rohrbr, and Myrtle M. Weldon. 28 p. Extension service circular 154. (Issued by Office of cooperative extension work)

The problem of reaching and influencing farm women not in home demonstration clubs; a study of 447 nonmembers of home demonstration clubs in three state areas. By M. C. Wilson. 7 p. Extension service circular 156. (Issued by Office of cooperative extension work)

Reaching more people through extension. By C. B. Smith. 8 p. (Issued by Office of cooperative extension work)

Statistical results of cooperative extension work, 1930. By M. C. Wilson. 28 p. Extension service circular 157. (Issued by Office of cooperative extension work)

Food and Drug Administration

Testing raspberries and loganberries for beetle infestation. By B. J. Howard and J. D. Wildman. 3 p.

Forest Service

Complete list of Forest service publications. Jan. 1, 1931. 64 p. (Issued by Branch of research, Division of silvics, Library)

Office of the Commissioner for Alaska

Third annual report of the Commissioner for the Department of agriculture for Alaska to the Secretary of agriculture. 1930. By Chas. H. Flory.

Bureau of Plant Industry

Cauliflower and heading broccoli production. By J. H. Beattie. 3 p. (Issued by Office of horticultural crops and diseases)

The control of perennial sowthistle. By M. W. Talbot. 4 p. (Issued by Office of botany)

Diseases of cultivated callas. By Freeman Weiss. 5 p. (Issued by Office of horticultural crops and diseases)

A list of medicinal plants grown in drug gardens of schools of pharmacy and other institutions during the years 1927 to 1929. 15 p. (Issued by Office of drug and related plant investigations)

Bureau of Plant Industry
(Cont'd)

Plants especially available for home ground planting in Virginia. Prepared by F. L. Mulford. 3 p.

Some trees and shrubs suitable for use in the Piedmont region (region 28). By Furman Lloyd Mulford. 12 p. (Issued by Division of horticultural crops and diseases)

Suggestions for disinfecting narcissus bulbs to reduce basal rot in storage. By Freeman Weiss. 4 p. (Division of horticultural crops and diseases)

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AGRICULTURAL LIBRARY NOTES

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Vol. 6 July-September, 1931 No. 7-9

THE BIBLIOGRAPHICAL PUBLICATIONS OF THE IMPERIAL AGRICULTURAL BUREAUX

By Claribel R. Barnett

At the Agricultural Research Conference held in London in 1927 it was decided to establish eight agricultural bureaus which were to act as clearing stations for information in eight bureaus of agricultural science. At that time there were already in existence two Imperial bureaus, one the Imperial Bureau of Entomology and the other the Imperial Bureau of Mycology. The eight additional bureaus were to be modeled more or less on the lines of these two bureaus and each of the eight new bureaus was to be attached to an existing institution, the director of which was to become the director of the bureau. The scheme was to be inter-Imperial in character. In other words, the bureaus were to be financed from a common fund to which all the governments of the British Commonwealth of Nations were to be asked to contribute. It was also decided that the control of the bureaus should be vested in an executive council on which the various governments should be represented. The eight bureaus have now been fully organized. The list of them follows with the institution to which each is attached shown in brackets:

The Imperial Bureau of Soil Science,
(Rothamsted Experimental Station, Harpenden, Herts., England)

The Imperial Bureau of Animal Nutrition,
(Rowett Research Institute, Bucksburn, Aberdeen, Scotland)

The Imperial Bureau of Animal Health,
(Veterinary Laboratory, Weybridge, Surrey, England)

The Imperial Bureau of Animal Genetics,
(Animal Breeding Research Department, Edinburgh University, Scotland)

The Imperial Bureau of Agricultural Parasitology,
(Institute of Agricultural Parasitology, Winches Farm,
Hatfield Road, St. Albans, Herts., England)

The Imperial Bureau of Plant Genetics (for crops other than herbage plants),
(School of Agriculture, Cambridge, England)

The Imperial Bureau of Plant Genetics (for herbage plants),
(Welsh Plant Breeding Station, Aberystwyth, Wales)

The Imperial Bureau of Fruit Production,
(East Malling Research Station, Kent, England).

According to the scheme of organization*, each bureau maintains an index of research being carried out in different parts of the empire and as far as possible

*See 1st annual report of the Executive Council of the Imperial Agricultural Bureaux, 1929/30.

in foreign countries, collects, abstracts and collates information from all sources bearing on the most important problems under investigation and also supplies on request such information to officials and advisory officers in all parts of the Empire. It will also supply, where feasible, bibliographies and photostat prints of articles on specific problems. In every country participating in the scheme, official correspondents to each of the bureaus have been appointed. The duty of each is to collect all relevant information in his country and pass it on to the bureau concerned, and conversely to receive information from a bureau and to pass it on to those concerned in his country.

In September, 1927, there was prepared and issued by the "Imperial Agricultural Research Conference, 1927", a publication containing abstracts of certain papers by research and advisory workers in Great Britain published during the first half (October, 1926-March, 1927) of the academic year 1926-27. In 1928 it published a second volume of "Abstracts of papers on agricultural research in Great Britain and Northern Ireland". This contained abstracts of papers published in the second half (April, 1927-September, 1927) of that academic year added to those previously issued in order to complete the review of British agricultural research work for the period of a full academic year. In 1929 it issued a third volume entitled "Abstracts of papers on agricultural research in the United Kingdom published during the year October, 1927 to September, 1928". No later issues of this series have been received by the U.S. Department of Agriculture Library.

During 1931 separate bibliographical publications from each of the new bureaus, with one possible exception, have been initiated and it is possible that these are to take the place of the annual volumes described above but definite information on this point is not available. The separate bibliographical publications of the different bureaus thus far received are not uniform in character. Two of the series are mimeographed while the five others are printed. On account of the importance of the Imperial Agricultural Bureaux, it was thought that the following detailed account of their bibliographical publications might be of service.

Publications Relating to Soils and Fertilizers. This list is issued by the Imperial Bureau of Soil Science located at the Rothamsted Experimental Station, Harpenden, England. It is in mimeographed form, the sheets being 13 1/2 x 8 1/2 inches in size. To date two issues have been received covering publications issued January-April and May-June, 1931. The articles indexed are arranged alphabetically by the name of the author but each entry also contains a decimal classification number. The price is 10s.

Nutrition Abstracts and Reviews. A circular in regard to this new journal has recently been issued by the Imperial Bureau of Animal Nutrition, Reid Library, Rowett Institute, Aberdeen, Scotland. The publication as projected differs from the bibliographical publications of the other bureaus in that it is a joint publication of the Imperial Agricultural Bureaux Council, the Medical Research Council, and the Reid Library. It covers therefore not only publications on animal nutrition but also on problems of nutrition in general, as

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shown by the following list of the branches of the subject which will be reviewed: 1. Technique; 2. Chemistry and properties of foodstuffs; 3. Physiology of nutrition, including digestion, absorption, metabolism, and the chemistry of tissues and body fluids, and the relationship of ductless glands and hormones to nutrition; 4. human deficiency; 5. feeding of farm animals; 6. Diet and health, including deficiency diseases and immunology, and population and morbidity statistics, in relation to nutrition; 7. Therapeutic dietetics, human and animal; 8. Food economics. The Journal will also contain reviews by acknowledged authorities, on the existing state of knowledge of particular subjects... For the present the Journal will be published quarterly, in January, April, July, and October. The first issue will be October, 1931, and will be a double number covering the literature from January to June, 1931. The Journal will be printed by the Aberdeen Press, Limited, Rowett Institute, Aberdeen, Scotland. All communications should be addressed to the Secretary to the Committee of Management, Nutrition Abstracts and Reviews, at the Bureau. The subscription will be £ 1. 1s. for the volume, or 6s. 6d. per number (first double number, 13s.), payable in advance, post free to any part of the world. Copies of the Journal, printed on one side of the paper for convenience in cutting and pasting abstracts on personal records, will also be available on request at a small additional cost.

The Veterinary Bulletin. This is the title of the bibliographical publication issued by the Imperial Bureau of Animal Health. At the Imperial Agricultural Research Conference, 1927, it was recommended that the Tropical Veterinary Bulletin hitherto published by the Bureau of Hygiene and Tropical Diseases should be merged in a more comprehensive publication to be published by the Imperial Bureau of Animal Health. Arrangements were accordingly made with the Bureau of Hygiene and Tropical Diseases whereby the publication of the Tropical Veterinary Bulletin was discontinued with the December, 1930, issue, and in its place a new journal, underthe title "The Veterinary Bulletin" was begun. This deals with all aspects of animal health in so far as they relate to original research and to administrative control but will not deal with clinical material from the point of view of the practitioner. The subjects dealt with are classified under the following headings: 1. Diseases caused by bacteria and fungi; 2. Diseases caused by protozoan parasites; 3. Diseases caused by filterable viruses; 4. Diseases caused by metazoan parasites; 5. Diseases, general; 6. Diseases related to nutritional and metabolic factors; 7. Diseases related to genetical factors; 8.Invertebrate vectors of disease; 9. Public health; 10. Mineral and plant poisoning; 11. Specific drug therapy; 12. Miscellaneous; 13. Official and other reports; 14. Book reviews. For 1931 the volume will be quarterly. The numbers for April and July have been issued. The remaining numbers for the year will be issued October 1, and December 1, respectively. From January, 1932, the journal will be published monthly. The subscription price is £ 1 per volume. Communicatiins regarding the bulletin should be addressed to the Imperial Bureau of Animal Health, Veterinary Laboratory, Weybridge, Surrey, England.

References to Literature Contained in Periodicals Received by the Imperial Bureau of Animal Genetics. This publication is issued in mimeographed form, 13 x 8 1/4 inches in size. The first two numbers were issued bi-monthly, one for January-February, 1931, and the other for March-April, 1931. Subsequent numbers, through June, have appeared monthly. The entries in each issue are classified instead of being arranged alphabetically. No information as to the subscription price is given on the publication.

Plant Breeding Abstracts. This is a publication of the Imperial Bureau of Plant Genetics and is in printed form. It is for crops other than herbage. This publication was begun in 1930. The first issue which was entitled "Papers on Plant Genetics" covered the period January-June, 1930. The second issue, under the same title, covered the second half of 1930. With vol. 1, no. 3, the title was changed to "Plant Breeding Abstracts" and the publication made a quarterly. The abstracts are arranged in classified form, each abstract bearing also a decimal classification number. The subscription price is 5s. per annum. Subscriptions should be sent to the Deputy Director, Imperial Bureau of Plant Genetics, School of Agriculture, Cambridge, England.

Herbage Abstracts. This is issued by the Bureau of Plant Genetics, Herbage Plants, at Aberystwyth, Wales. It is "a quarterly issue, commencing June, 1931, superseding Current Literature Lists, Herbage Research Circulars, and Monthly Abstract Service." As in the case of Plant Breeding Abstracts, the abstracts are arranged in classified form, each abstract bearing also a decimal classification number. The price is 1s. 6d. per number, or 4s. for the 1931 set (of three issues only), and thereafter 5s. per annum.

Horticultural Abstracts. This is issued by the Imperial Bureau of Fruit Production, East Malling, Kent, England, and is a quarterly. It is the result of a resolution adopted at the First Imperial Horticultural Conference held in London, August, 1930. Its aim is to collect under one cover summaries of the more important current horticultural literature, special emphasis being attached to the fruit production, storage, and allied subjects. As in Plant Breeding Abstracts, the entries are arranged in classified order and each entry bears a decimal classification number. Communications should be addressed to the Imperial Bureau of Fruit Production, East Malling, Kent, England. The subscription price is 5s. yearly, post free.

Thus far no separate bibliographical publication from the Imperial Bureau of Parasitology has been received by the U. S. Department of Agriculture Library. References to publications on animal parasitology are included in the Veterinary Bulletin described above and it is possible that no separate bibliographical publication containing references on agricultural parasitology in general is to be issued by the Imperial Bureau of Agricultural Parasitology.

Five of the Bureaus use in their publications the Classification Décimale Universelle of the Institut International de Bibliographie. A memorandum on this system, which includes English translations of certain sections, has been issued by the office of the Imperial Agricultural Bureaux for the use of the separate bureaus, but this memorandum is not for general distribution.

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CLEMSON COLLEGE LIBRARY - RECENT DEVELOPMENTS

The Librarian of Clemson College has sent the following article concerning the College library:

"During the past year a quarter of the flooring for the second tier of stacks was laid, thus giving space needed ever since we moved into the building in 1926. We are building up a museum collection of things pertinent to the early life of the state agriculturally, industrially, and such, as well as things of local interest. Books and letters are on display. At present the collection is very small but varied, there being such things as brick and mortar from old forts; a large Indian pot unearthed while plowing, remarkable for its size, design, and thinness of walls, being less than a quarter of an inch thick; duelling pistols; confederate money; a cypress mortar and pestle, used for beating off the husks of rice, made in 1898 by a negro of Friff Point Plantation, St. Helena Island, S. C., and in use ever since.

The Entomology Department has a number of cases of birds, insects, animals, and snakes, which form part of the museum.

Interesting articles of a different nature are the following:

Diploma given to Thomas G. Clemson by South Carolina College, conferring upon him the degree of doctor of laws.

Parole given Thomas G. Clemson upon the surrender of the confederate forces.

Letter from John C. Calhoun to Mrs. Florida Bonneau Calhoun, 24 August 1810.

Bordley, John Beale. Essays and notes on husbandry and rural affairs. 2d ed. Phil., Dobson, 1801. One of the early books on agriculture written in this country. This copy belonged to William R. Davie whose signature it contains. He was the first president of the first state wide agricultural society in South Carolina, organized in 1817. He was also the founder of the University of North Carolina in 1789, and contributed liberally to its support."

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PHOTOGRAPHS OF ENTOMOLOGISTS

The library of the Bureau of Entomology of the U.S. Department of Agriculture has recently come into the custody of the collection of photographs of entomologists gotten together by Dr. L.O. Howard, former chief of the bureau. The collection now includes more than 2500 photographs of entomologists throughout the world. An effort will be made to add to these constantly so that the national collection may be as comprehensive as possible as well as of decided personal interest and historical value. The photographs are mounted on cards of uniform size (8x10 1/2 inches) and are arranged alphabetically in file cases. Full name, date of birth, and photographer are indicated where possible and on the reverse of the card some account of the person is written. The collection includes photographs of entomologists from the time of Linnaeus down to the present. The usefulness of such a collection is great, and, since it is public property, prints may be had by any entomologist for use in lectures or in publications.

Under the title "The Homemaker's Own Library", Mrs. Rowena Schmidt Carpenter of the Bureau of Home Economics of the U.S. Department of Agriculture, recently compiled for Better Homes in America a list of books of particular interest to the home maker. The list is divided into five classifications as follows: 1. The house, its construction, furnishings, care and management; 2. Household textiles and clothing for the family; 3. Food, its selection, preparation, and service; 4. Health, child care and training, and social problems of the family; 5. Government bulletins. The last group, although not a separate classification in the same sense as the others, is kept as a unit because of the publication origin. The address of Better Homes in America, from whom the leaflet may be obtained, is 1653 Pennsylvania Avenue, Washington, D.C.

"Trade in Grain Futures" is the title of a new monthly mimeographed publication of the U.S. Department of Agriculture. It is issued by the Grain Futures Administration and is statistical in character, giving the volume of trading, open commitments, and prices of the various grains. Vol. 1, no. 1 is for the month of July, 1931.

Another new mimeographed serial publication of the Department is entitled "Agricultural Economics Extension" and is issued by the Division of Extension in Agricultural Economics, Office of Cooperative Extension Work, in cooperation with the Bureau of Agricultural Economics. It is the purpose of the publication to record economics extension activities in Washington and in the States and counties "through comments, discussions, and information on programs, plans, successful methods, results, and like material that may contribute to the greater efficiency of the economics extension work." The first number bears the date June 8, 1931.

The Tenth International Congress of Horticulture is to be held in Paris, May 30-June 5, 1932. The announcement states that the main questions to be studied are: Improvement of garden plants (flowers, fruits, vegetables), selection, hybridization, and resistance to diseases. All correspondence regarding the Congress should be addressed as follows: Secrétaire Général de la Société Nationale d'Horticulture, 84, rue de Grenelle, Paris, 7e, France.

The editorial in the Experiment Station Record for August, 1931, v. 65, no. 2, is on the passing of Dr. Whitman Howard Jordan, Prof. John Henry Comstock, and Dr. Louis Hermann Pammel, "three more of the ever-dwindling band of pioneers in agricultural education and research in this country."

The Subscription Books Bulletin for July, 1931, contains the following description of the three-volume edition of the Standard Cyclopedia of Horticulture: "This work is reviewed in Mudge's Guide to Reference Books and is known to be so useful that we need not comment on it here except to answer inquiries about the three volume set. It has not been revised since the edition of 1917 but a corrected edition was made, simply correcting typographical errors, in March, 1922. In January, 1925, the set was reissued in a new fabrikoid binding combining two volumes in one to make it a three volume set. The paper of this new printing is of good quality but thin; so that the six volume edition is probably more satisfactory for library purposes."

The following extract is taken from the foreword of College and Reference Library Yearbook, no. 3:

"This third College and Reference Library Yearbook is the product of an editorial committee named by chairman F.L.D. Goodrich of the College and Reference Section of the A.L.A. about October first, 1930. We consider it still an experiment. We have attempted to organize it around the related themes of Progress and Standards, hence the first three chapters. A fourth, on university libraries, was promised but failed at the last moment. A fifth was planned by the committee and both accepted and prepared by Mr. Charles H. Brown on the topic of "Progress, Ideals, and Standards in Land-Grant College Libraries." When the paper was ready for publication Mr. Brown withdrew it because it could be summarized as "Progress...Backwards. Aims...To keep alive. Ideals...Killed by starvation." Conditions in most of the land-grant college libraries are deplorable largely because of inadequate appropriations. Mr. Brown argued that to publish such a report in this Yearbook would only further embarrass the respective librarians who are not to blame for the situation. He adds, "if the paper could be read to college Presidents there might be some sense in publishing it; but it would not be...The publication in the Yearbook would do more harm than good." An effort will be made to get the information before the Land-grant Association of Colleges and Universities."

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INTERLIBRARY LOANS FROM THE U.S. DEPARTMENT OF AGRICULTURE LIBRARY

The U.S. Department of Agriculture Library, being desirous of rendering assistance in so far as possible to the agricultural college and experiment stations in their official work, has extended to the libraries of these institutions the privilege of borrowing books for use by their scientists. Other scientific institutions are also borrowers, and the total of books lent by the library during the year is large. The work connected with these loans taxes to the utmost the time of the personnel available for such work. It might be lightened, however, if the borrowing libraries would be careful to observe our "Rules for Inter-Library Loans". It has been the intention of the Library to send copies of the rules to all libraries which request loans but some libraries may not have received them. If so, copies will be sent on request. Among the rules most frequently violated is that asking that books be returned promptly at the expiration of the time designated, which ordinarily is a month from the date of sending. Failure to return the books promptly or to write to ask for renewal results in a large increase of work and worry. A note to explain the reason for delay, if such delay is necessary, which should seldom be the case, would save the circulation assistants many hours. Many borrowers are punctilious in this regard but some are not and the impression exists, though perhaps unfounded, that they do not begin to round up the books until the overdue notice is received. It is also urged that borrowers take pains to send as full and as correct references as possible even although this may involve a little trouble to the scientist who has sent in his reference in illegible or incomplete form. This care is to his interest as it will probably make it possible for him to get more promptly the publications desired.

Emma B. Hawks, Associate Librari

NOTES ON PERIODICALS

Anales de quimica y farmacia, publicacion bimestral. Santiago de Chile. Casilla 3670. 8°. t. 1, no. 1, Jan./Feb. 1931. $10.00.

Biedermann's zentralblatt; referierendes organ für agrikulturchemie und rationellen landwirtschaftsbetrieb. Leipzig. With Apr. 1931, name changed to Biedermann's zentralblatt für agrikulturchemie und rationellen landwirtschaftsbetrieb and absorbed Die tierernahrung; zeitschrift für die gesamte fütterungslehre und futtermittelkunde. With April, 1931, published in two parts, abteilung A and B. Abteilung B formed by Die tierernährung.

Dalton's poultry journal. Oklahoma City, Okla. Ceased with v. 1, no. 3, Mar. 1931. Absorbed April 1931 by Standard poultry journal.

Duroc-journal-bulletin. Shenandoah, Iowa. Discontinued with v. 29, no. 5, May 10, 1931. Consolidated June, 1931, with National duroc news which continued as National duroc news and duroc journal-bulletin.

Ceres italica. 56. Via Quintino Sella-Roma. semi-mo. 8°. anno 1, no. 1, Ja. 15, 1931.

Fruits and gardens. Zeeland, Mich. Ceased with v. 47, no. 3 [i.e. v. 29, no. 3], Apr. 1931. Combined July 1931 with Modern poultry breeder which continued as Modern poultry breeder combined with fruits and gardens.

International dairy goat journal. Fairbury, Neb. Changed with v. 9, no.6, Aug. 1931, to Dairy goat journal.

Journal de chimie physique. Paris. With v. 28, no. 1, Jan. 1931, combined with Revue generale des colloides et de leurs applications industrielles and continued as Journal de chimie physique et revue generale des colloides

New Mexico conservationist. Santa Fe. Discontinued with v. 4, no. 1, Spring, 1931. Combined July 1931, with New Mexico highway journal to form New Mexico.

"OK" poultry culture. Tulsa, Okla. Changed with v. 20, no. 8, July, 1931, to Poultry culture.

Poultry craftsman and breeder. Los Angeles. With v. 46, no. 2, Aug. 1931 absorbed Pacific poultryman and continued as Poultry craftsman and the Pacific poultryman.

Science and invention. New York. Discontinued with v. 19, no. 4, Aug. 1931. Absorbed Sept. 1931 by Popular mechanics monthly.

Physics; a journal of general and applied physics. 450-454 Ahnaip St., Menasha, Wis. mo. il. v. 1, no. 1, Jl. 1931.

Poultry and dairy world. Oklahoma City, Okla. Discontinued with v. 2, no. 4, Jan. 1931. Absorbed Feb. 1931 by Dalton's poultry journal.

Revista de entomologia. Mario Autuori, P. O. Box 1302, S. Paulo, Brazil. quar. 8°. il. v. 1, no. 1, Apr. 1931. $3.00.

Successful rabbit breeding. With v. 8, no. 8, June, 1931, combined with Reliable rabbit journal and continued as Successful rabbit breeding with which is consolidated the Reliable rabbit journal.

La technique agricole internationale. Via Vittorio Veneto, 7 - Rome. quar. 8°. v. 1, no. 1. Jan./June, 1931.

Wiedman's fur farmer. La Crosse, Wis. Changed to Wiedman's rabbit farmer with v. 3, no. 7, July, 1931.

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AMERICAN BOOKS

Connecticut Agricultural College - A History. By Walter Stemmons, College Editor. Research in collaboration with Andre Schenker, Instructor in History. Foreword by Ralph Henry Gabriel, Professor of History, Yale University. 238 p. il. Storrs, Conn., Conn. Agric. College, 1931.

Contents; Chapter I. An adventure in education; Chapter II. The stone age at Storrs; Chapter III. Yale-Storrs controversy; Chapter IV. The spectre of a "State University"; Chapter V. "The War of the Rebellion"; Chapter VI. Proving that it pays to advertise; Chapter VII. The march on Hartford; Chapter VIII. The college during the war; Chapter IX. Cultural or agricultural? Chapter X. Swapping horses in midstream; Chapter XI. The fiftieth year; Chapter XII. Research, the cornerstone of progress; Chapter XIII. The college goes to the people. Price $1.00.

Regional Agricultural Readjustments. 18 p. Washington, D. C., Agric. Service Dept., Chamber of Commerce of the U. S., May, 1931.

"This is the first of a series of studies of recent shifts in the geographical distribution of farm enterprises and of changes in production methods which have resulted largely from the increasing mechanization of agriculture. The report deals with the wheat, cotton and corn belts, particularly with certain new-wheat- and cotton-producing areas which have developed largely during the past decade. It forms one link in a chain of studies by the Agricultural Service Department dealing with the general subject of land utilization and with other basic problems of American agriculture, which have been recommended by the Agricultural Service Department Committee---An additional report dealing with one or more other agricultural industries is expected to be published within the next year."

Laws Relating to Agriculture. Compiled by Elmer A. Lewis, Superintendent of Document Room, House of Representatives. 270 p. Washington, D. C., Supt. of Documents, 1931.

Subjects covered: Association of producers of agricultural products; Market information on agricultural products; Cooperative marketing division, to create; Antidumping of perishable farm products; Prevent board of trades discriminating against farmers' cooperative association; Farm relief act; Tobacco statistics; Wool standards; Fertilizer; Turpentine and rosin amendment to farm relief act; Foreign field service to promote agriculture abroad; Perishable agricultural commodities act; Labeling canned food falling below standard.

The Agricultural Ladder in the Careers of 610 Ohio Farmers. By E. D. Treteau, Rural Sociologist, College of Agriculture, Ohio State University. 12 p. (Reprinted from the Journal of Land and Public Utility Economics, August, 1931)

What Readers Want to Know. By Tom L. Wheeler, Editor-in-Chief, The Indiana Farmer's Guide, 242 p. il. Huntington, Ind., The Indiana Farmer's Guide, 1931.

A compilation of the information contained in the department known as "What Readers Want to Know" which for a number of years has been a feature in The Indiana Farmer's Guide.

A survey of Animal Breeding Research in the United States. 36 p. National Research Council, Animal Breeding Committee, Washington, D.C. 1931. (Mimeographed)

"This survey was undertaken in order to ascertain the animal-breeding research work actually under way at State and Federal experiment stations in the United States. It was surmised that a study of this field would not only provide a digest of the animal-breeding work in progress but would disclose other phases of breeding not now being investigated, the solutions of which are also essential to the country's livestock future." The committee making the survey was as follows: James A. Gamble, Chairman; George Haines, Hugh C. McPhee, R. R. Graves, J. O. Williams, D. A. Spencer, W. H. Black, E. Z. Russell, and E. W. Sheets, all of the U. S. Department of Agriculture; and Sewall Wright, of the University of Chicago, formerly of the U. S. Department of Agriculture.

Like Breeds Like. A non-technical treatise covering heredity, livestock breeding and eugenics. By Harry H. Cook. 383 p. il. Ontario, Calif., San Aloi's Jersey Farm, 1931.

Attempts to "assemble, describe and interpret some of the myriad biological principles and natural laws; their working processes; how they have unfolded into the existing forms; and how, artificially and arbitrarily, they have been aided or otherwise modified by man." The concluding chapter deals with the subject of eugenics pertaining to the human race.

Progressive Poultry Raising. By M. A. Jull, Senior Poultry Husbandman, U. S. Department of Agriculture. 222 p. il. Chicago, Armour's Livestock Bureau, 1931.

"Proper management of the flock, regulating supplies, and furnishing the kind of product needed to meet the demand---are phases of the subject treated in this book."

100 Proven Direct Selling Plans for Eggs and Poultry. By O. A. Hanke, Editorial Director, Poultry-Dairy Publishing Co. 157 p. il. Mount Morris, Ill., Poultry Tribune, 1930.

The plans included in this volume are the result of a marketing contest sponsored by the Poultry Tribune, and entered into by poultrymen from forty-six states, Canada, and Scotland. According to the preface, it was the first contest of its kind in the history of the poultry industry.

The Principles of Dairying. Testing and manufactures. By Henry F. Judkins, Director of Production for National Dairy Products Corporation, New York City. 2 d ed. rev. by Richard W. Smith, Professor of Dairy Manufactures, University of Vermont. 322 p. il. New York, John Wiley & Sons, 1931.

Designed primarily as a textbook. The first edition contained 279 pages. References are given at the end of each chapter.

If I Were to Make a Garden. By Ernest H. Wilson. Foreword by Richardson Wright, Editor of House and Garden. 295 p. il. Boston, The Stratford Company, 1931.

This work had just been completed at the time of Doctor Wilson's death in October, 1930. In it "he reveals the practical application of the 'aristocrats' of plantdom to every phase of garden-making, together with a wealth of new garden material." Many of the chapters are reprinted, sometimes with slight changes, from House and Garden. The chapters on roses and euonymus are reprinted from earlier volumes by Doctor Wilson. They have been included in order that those who desire to follow his suggestions for peopling a garden may have, in this volume, his ideas on two groups of indispensable plants.

The foreword is a biography of the author.

Gardening in the South. By George R. Briggs. 232 p. il. New York, A. T. De La Mare Co., 1931.

"Designed to meet the needs of the average southern home owner who is desirous of beautifying his home grounds."

The Garden Club Manual. By Edith R. Fisher (Mrs. Frederick Fisher), formerly Vice-President of the National Council of State Garden Club Federations and Honorary President of The Garden Club of Illinois. Edited by Mrs. Francis King. 123 p. New York, The Macmillan Company, 1931.

"A complete handbook for all officers, committee chairmen and members of garden clubs, garden sections of women's clubs and civic clubs, and for those who would organize or reorganize successful and purposeful garden clubs."

The Garden Doctor. Plants in Health and Disease. By Frederick J. Chittenden, Director, Royal Horticultural Society's Experimental Gardens, Wisley. 154 p. il. London, George Newnes; New York, Charles Scribner's Sons, 1930.

"Aims to give a short and simple account of some of the common troubles met with in gardens, and where they are known, methods of meeting them that have proved effective."

All About Flowering Bulbs. For home and garden. By T. A. Weston. 184 p. il. New York, A. T. De La Mare Company, 1931.

In his preface the author states that this volume is a modification of his earlier work entitled "Bulbs that bloom in the spring", with the addition of two sections covering "Summer flowering" and "Tender or greenhouse subjects."

Plant Materials of Decorative Gardening. The woody plants. By William Trelease, Professor of Botany, Emeritus, University of Illinois. 4th ed. rev. 188 p. Urbana, The Author, 1930.

Differs very little from the third edition except in the correction of certain typographic or similar errors.

Seeding and Planting in the Practice of Forestry. A manual for the guidance of forestry students, foresters, nurserymen, forest owners, and farmers. By James M. Toumey, Professor of Silviculture, Yale University. 2d ed. rev. and enl., by Clarence F. Korstian, Director of Duke Forest and Professor of Silviculture, Duke University. 507 p. il. New York, John Wiley & Sons, 1931.

In addition to bringing this work up to date in general, the new edition includes an additional chapter (Chapter VII) on "Planting Surveys and Plans." The first edition contained 455 pages.

Sustained Yield Forest Management as a Solution to American Forest Conservation Problems. By David T. Mason and Donald Bruce. 47 p. Portland, Oregon, Mason and Stevens, June, 1931.

The Tropical Forests of the Caribbean. By Tom Gill. 318 p. il. Published by the Tropical Plant Research Foundation in cooperation with the Charles Lathrop Pack Forestry Trust. Baltimore, Md., Printed by the Read-Taylor Company, 1931.

The results of a survey conducted over a period of three consecutive winters for the purpose of seeking and making usable those facts about the forests of the Caribbean that might be used to supplement and become an integral part of the known forest facts of the world.

An Outline of Forest Pathology. By Ernest E. Hubert, Professor of Forestry, In Charge, Forest Products Laboratory, School of Forestry, University of Idaho. 543 p. il. New York, John Wiley & Sons, 1931.

"Attempts to cover the principles and practices of forest pathology in the United States but is general enough so that it may also be applicable both in principle and practice to forest conditions in Canada. The information contained in this volume is intended to serve a comparatively large group who are interested primarily in such activities as conservation, forestry, tree surgery, logging, lumbering, wood preservation, pulp and paper manufacturing, the manufacture and sale of various kinds of forest products, and all those concerned in the erection, maintenance, and protection of wooden structures."

Seed Dispersal. A student-made book. Edited by William A. Matheny, Professor of Civic Biology and Botany, Ohio University. 141 p. il. Ithaca, N. Y., The Slingerland Comstock Co., 1931.

Field Work for the Local Botanist. By A. S. Hitchcock, Principal Botanist in Charge of Systematic Agrostology, U. S. Department of Agriculture. 58 p. Washington, D. C., Author, 1867 Park Road, 1931.

"The amateur botanist is often moved by a desire to contribute his mite to the general store of knowledge concerning plant life...There is ample opportunity to do original work in many lines at home if one has access to woods, fields and swamps." It is the object of the present booklet to give suggestions on subjects most suited to the local field worker."

The Vegetable Industry. By Henry Albert Jones and Samuel Leonard Ensweller, Division of Truck Crops, College of Agriculture, University of California. 431 p. il. New York, McGraw-Hill Book Company, 1931.

Designed primarily as a text book of high school grade. Aims "to give the beginner some idea of the importance of the vegetable industry, important producing areas and the different systems under which vegetables are produced. While the main stress has been placed on production methods, considerable attention has also been given to the many other activities of the industry. An orientation chapter is included."

References are given at the end of each chapter.

Farm Management. The business of farming as successfully carried on in Canada. Written and compiled by Duncan Marshall, Minister of Agriculture, Province of Alberta, 1909-1921. 246 p. il. Toronto, Imperial Oil Limited, 1931.

The Small City and Town. Report of a conference on community relations. Edited by Roland S. Vaile, Professor of Marketing, University of Minnesota. 159 p. Minneapolis, The Univ. of Minn. Press, 1930.

This conference on the problems of small cities and towns was called as a special feature of the 1929 summer session at the University of Minnesota. The report contains a chapter on "The agricultural situation and the small town" and one on "An income-producing public enterprise - town forests".

Bibliography: p. 149-159.

Proceedings of the Sixth Congress of the Permanent International Association of Road Congresses, Washington, D. C. 1930. 339 p. Washington, D. C., Govt. Ptg. Office, 1931.

Dollar's Veterinary Surgery, General, Operative and Regional. Second edition, rewritten and extended by J. J. O'Connor, Professor of Surgery at the Veterinary College of Ireland, Dublin. 933 p. il. Chicago, Alex. Eger, 1931.

In his preface Professor O'Connor states that in rewriting Dollar's Treatise on Veterinary Surgery, his aim has been "to abridge the work without omitting any essential detail, to supply deficiencies.. and to arrange the matter in a more concise manner and under headings which must greatly facilitate the reader in grasping the salient points of the subject."

A Naturalist in a University Museum. By Alexander G. Ruthvan. 143 p. Ann Arbor, Alumni Press, Univ. of Michigan, 1931.

The papers which compose the volume are contributions to a general policy for college museums.

The Romance of the Hive. By Frank C. Pellett. 203 p. il. New York, The Abingdon Press, 1931.

The author states that many of the stories included in this volume have already appeared in somewhat modified form in his department "The Busy Bees" in The Flower Grower.

The Butterfly Book. A popular and scientific manual, describing and depicting all the butterflies of the United States and Canada. By W. J. Holland, former Chancellor of the University of Pittsburgh. Rev. ed. 424 p. il. New York, Doubleday, Doran & Company, 1931.

This volume, originally written to fill the want for a manual, comprehensive in scope, richly illustrated, popular in character and so put as to create a widespread interest in the world of insect life, has now been thoroughly revised and enlarged, so that it has become a complete illustrated manual, still popular in form but strictly scientific in content, of the butterflies of North America from the polar regions to the Gulf of Mexico.

The previous edition contained 237 pages.

The Insect Menace. By L. O. Howard. 347 p. il. New York and London, The Century Co., 1931.

In one small volume Doctor Howard, former Chief Entomologist of the U. S. Department of Agriculture and probably the world's leading figure in the war against injurious insects, epitomizes for the thoughtful general public what should be known by every one as to the insect menace. He tells its importance and why it is attracting so much attention. He shows the many natural advantages of the insect type over man, its greater antiquity, small size, power of concealment, rapidity of motion, strength of body structure and particularly its power of enormous multiplication. Man's present civilization and methods are actually helping the insects to increase and spread. He sees the world slowly awakening to this menace and describes the growing use of man's defensive weapons; chemicals, airplanes, quarantine and variations in crop practice, telling in detail three stories of the progress and victory for man. It is a graphic and well written account.

Common Pests. How to control some of the pests that affect man's health, happiness and welfare. By Rennie W. Doane, Professor of Zoology, Stanford University. 384 p. il. Springfield, Ill., and Baltimore, Md., Charles C. Thomas, 1931.

"Intended as a manual or ready reference book for the farmer, the stockman, the gardener, the householder and all others who may at times be more or less troubled with pests."

FOREIGN BOOKS

A Handbook of Coniferae, Including Ginkgoaceae. By W. Dallimore, Keeper of Museums, Royal Botanic Gardens, Kew, and A. Bruce Jackson. 2d ed. 581 p. il. London, Edward Arnold & Co., 1931.

In this edition the opportunity has been taken to correct obvious errors and misprints in the first edition and to include descriptions of several species and varieties which were inadvertently omitted. Included as a supplement at the end of the volume, with a separate index, are new species obtained during the seven years which have elapsed since the book was first published.

A Dictionary of the Flowering Plants and Ferns. By J. C. Willis, late Director, Botanic Gardens, Rio de Janeiro. 6th ed. rev. 752 p. il. Cambridge, University Press, 1931.

"In this edition the work is completely revised and as far as possible brought up to date. The most noteworthy new feature is the incorporation of all the parts into one general dictionary and the omission of Part I of previous editions."

Wild Fruits of the Country-Side. Figured and described by F. Edward Hulme. 221 p. il. London, Hutchinson & Co., n. d.

Deals with the principal typical forms that one may reasonably expect to meet with during a country sojourn.

Economic Biology for Students of Social Science. By Philippa C. Esdaile, Reader in Biology in the University of London, King's College of Household and Social Science. Part II. Animal and vegetable products. 231 p. il. London, University of London Press, 1931.

"This book presents a study in biology from a novel aspect. It will interest those who have the care of homes of whatever size, teachers of housecraft, geography, economics, and it will be indispensable to parents in answering the questions, how, when, and why, concerning animal and vegetable products in daily use." (Publishers)

Life: Outlines of General Biology. By Sir J. Arthur Thomson, Aberdeen Professor of Natural History in the University of Aberdeen, and Patrick Geddes, Director of Scots and Indian Colleges, University of Montpellier. 2 v. il. London, Williams & Norgate Ltd., 1931.

The Science Society of China. Its History, Organization and Activities. In commoration of the formal opening of the Science Society of China Library in Shanghai and the New Biological Laboratory in Nanking. 31 p. il. Shanghai, The Science Society of China, January, 1931.

A description of the Science Library is contained on pages 13-17.

Agriculture as a World Problem. 22 p. Geneva, Geneva Research Information Committee, 4, rue de Monthoux, 1931. (Geneva Special Studies, vol. II, no. 5, May, 1931) Price 25 cents.

Agriculture in Soviet Russia. By Joan Beauchamp. 126 p. London, Victor Gollancz, Ltd., 1931.

Contents: Chapter I. Three Soviet farms; Chapter II. The development of Soviet farms; Chapter III. Collectivisation; Chapter IV. The Five Year Plan in its relation to agriculture; Chapter V. The old and the new. The information given was obtained by the author while traveling through rural Russia in 1930.

Agricultural Research in the Czechoslovak Republic. 40 p. il. Praha, State Institutes of Agricultural Research, 1931.

Contents: I. Survey on agricultural research in the countries of the Czechoslovak Republic prior to its constitution; II. Organization of the research work and establishment of institutes and stations in the Czechoslovak Republic.

Why the Land Dies. By Sir William R. Thomas. 32 p. London, Faber & Faber, Ltd., (1931). (Criterion Miscellany Series, No. 27)

The author "suggests what is wrong with agriculture and how it may be set right" in the case of England, Scotland and Wales.

The Profitableness of Farming in Scotland. Report on the financial results obtained on certain groups of farms in Scotland in 1928-29, with a statistical account of the farms in the counties of Berwick, Roxburgh and Selkirk. 162 p. Edimburgh, H. M. Stationery Office, 1931. (Publication of the Department of Agriculture for Scotland)

Memorandum on Credit Facilities for Agriculture. 21 p. Kenya, East Africa. Board of Agriculture, Colony and Protectorate of Kenya, Nov. 1930.

The Provision of Credit with Special Reference to Agriculture. By H. Belshaw, Professor of Economics, and Dean of the Faculty of Commerce, Auckland University College, New Zealand. With two chapters upon the provision of rural credit in Great Britain, by R. R. Enfield of the Ministry of Agriculture and Fisheries, London. 326 p. Cambridge, W. Heffer & Sons, Ltd., 1931.

"Aims at an analysis of the factors which constitute a special credit problem in agriculture and critically examines the more important types of credit intermediary." The book is divided into four parts as follows: Paet I. The general problem of credit; Part II. The problem of rural credit; Part III. Long term credit agencies; Part IV. Short term and intermediate credit agencies.

First Report of the Agricultural Machinery Testing Committee. London, H. M. Stationert Office, 1931. (Ministry of Agriculture and Fisheries)

Contents: Present constitution of Committee and terms of reference; introduction; origin of the testing scheme; description of the testing scheme; proceedings of the committee; scope of the testing scheme; finance; problems arising out of testing; the future of testing; conclusion.

Agricultural Marketing. By Brijendra Nath Bhargava, with an introduction by Radhakamal Mukerjee, Professor of Economics and Sociology, Lucknow University. 109 p. London, New York, and Toronto, Longmans Green & Co., 1930. (University of Lucknow: Studies in economics and sociology)
Treats of conditions in India.

Marketing of Fruit and Vegetables in the Vale of Evesham (Plums, Asparagus and Cabbage). By M. A. Abrams, Research Student and Lecturer in Economics. 60 p. Offenham, near Evesham, Worcs., Engl., Avoncroft College for Rural Workers, 1931.
Aims to present a broad picture of the marketing conditions of fruit and vegetables in the Vale of Evesham.

Commercial Cucumber Culture. By James W. Craig. 2d ed. rev. and enl. 47 p. London, Ernest Benn Ltd., 1931.
In this revision are introduced a few new details which the author has found beneficial to his own crops but the principles of cultural methods are still the same.

Fruits and Fruitculture in the Dutch East Indies. By J. J. Ochse, in collaboration with R. C. Bakhuizen van den Brink. English edition of Vruchten en Vruchtenteelt in Nederlandsch-Oost-Indie. 180 p. il. Batavia-C., G. Kolff & Co., 1931.
"Aims at giving a survey of the best and most popular fruits furnished by the Dutch East Indies".

Culture des Fruits du Midi et de l'Afrique du Nord. Utilisation - Commerce. Par L. Gullochon, Professeur d'Arboriculture, et R. Guillochon, Ingenieur Agronome. 244 p. il. Paris, J. B. Baillière et Fils, 1931. (Encyclopédie Agricole)

Beekeeping in Antiquity. By H. Malcolm Fraser. 157 p. il. London, University of London Press, 1931.
A history of beekeeping during the classical period in Greece and Rome. "Written from the point of view of a modern beekeeper, and showing that a study of ancient beekeeping is a necessary part of the equipment of any beekeeper who wishes to understand the principles upon which his art is based."

Traité Complet d'Apiculture. Par E. Alphandéry, Directeur de la Gazette Apicole. 572 p. il. Paris, Éditions Berger-Levrault, 1931.
As the title implies, this is a complete treatise on apiculture. It also includes interesting chapters on the history of agriculture, the bee in literature, laws and regulations on bees, apiculture in France, and apiculture in the world. Periodicals on apiculture published in the various countries are given in the last two chapters mentioned. The concluding chapter, pages 549-561, contains a bibliography of the books on apiculture "published in the French language" and one of the "Principal works published in the English language." The book contains 900 illustrations in the text, some in colors, and ten colored plates.

The Microscopic Examination of Cattle Foods. A text book for the diagnosis of cattle food materials, including a description of the plant ingredients commonly used in cattle cakes and meals, methods of preparing samples for analysis and five tables of comparison. By S. T. Parkinson, Head of the Department of Botany, South-Eastern Agricultural College, Wye, Kent, and W. L. Fielding, South-Eastern Agricultural College, Wye, and Selwyn College, Cambridge. 97 p. London, Headley Brothers, 1930.

Australian Dairyman's Handbook. By Ralph S. Maynard, Editor, Live Stock Bulletin and Farmer & Settler. With contributions by many of the most eminent experts in Australia. 738 p. il. Sydney, Angus & Robertson Ltd., 1931.

Lehrbuch der Histologie und Vergleichenden Mikroskopischen Anatomie der Haussäugetiere. Bearbeitet von Dr. A. Trautmann, Professor an der Tierärztlichen Hochschule in Hannover, und Dr. Jos. Fiebiger, Professor an der Tierärztlichen Hochschule in Wien. Sechste, neubearbeitete Auflage von Ellenberger-Trautmann, Grundriss der vergleichenden Histologie der Haussäugetiere. 394 p. il. Berlin, Paul Parey, 1931.

Der Tierischen Schädlinge des Ackerbaues. Von Sofie Rostrup, Ehem. Leiter der zoolog. Abeilung des Dänischen Pflanzenpathologischen Instituts, und Mathias Thomsen, Professor der Zoologie a. d. kg. Tierärztlichen und Landwirtschaftlichen Hochschule Kopenhagen. (Nach der vierten danischen auflage ins Deutsche übertragen und für die deutschen Verhältnisse bearbeitet von Dr. H. Bremer and Dr. R. Langenbuch, der Zweigstelle Aschersleben der Biologischen Reichsanstalt für Forst- und Landwirtschaft) 367 p. il. Berlin, Paul Parey, 1931.

Grundriss der Pathologischen Histologie der Haustiere. Von Dr. L. Lund, Professor der pathologischen Anatomie und animalischen Lebensmittelkunde an der Tierärztlichen Hochschule Hannover. 471 p. il. Hannover, Verlag von M. & H. Schaper, 1931.

Lehrbuch der Speziellen Pathologischen Anatomie der Haustiere. Von Dr. Karl Meiberle, Professor der allgemeinen Pathologie und pathologischen Anatomie der Tiere, und Dr. Paul Cohrs, Professor der Veterinär-Histologie und Embryologie, Veterinär-Pathologischen Institutes der Universität Leipzig. 796 p. il. Jena, Verlag von Gustav Fischer, 1931.

Social behavior in Insects. By A. D. Imms. 117 p. il. London, Methuen & Co., Ltd., 1931.

A book which attempts to give a brief but authoritative account of the present state of knowledge relating to the behavior of insects, and to convey information which can be obtained only at the cost of considerable time and trouble by a person who is engaged in this particular branch of study.

BIBLIOGRAPHIES

"Early Scottish Agricultural Writers (1697-1790)" by Prof. J. A. S. Watson and G. D. Amery, School of Rural Economy, Oxford, is a recent interesting and authoritative article contained in the Transactions of the Highland and Agricultural Society of Scotland, series 5, vol. 43, p. 60-85. The authors dealt with are James Donaldson, author of "Husbandry Anatomised", 1697, which is described as the first important Scottish book on agriculture; Lord Belhaven, William Mackintosh, Robert Maxwell, Francis Home, Andrew Wright, and James Anderson. The article is followed by a Hand List of Scottish Agricultural Literature down to 1790. The works are arranged chronologically, those of each author being grouped under the date of his first publication.

Bulletin 108 of the Ohio State University Agricultural Extension Service is a "Condensed List of Floriculture Bulletins and Books", compiled by Victor H. Ries, Extension Specialist in Floriculture.

A "Catalogue of the Library of the Pennsylvania Horticultural Society", Philadelphia, was issued in January of this year by the Society. In addition to the alphabetical list of the books contained in the library of the Society, there is a subject catalogue of the books most in demand.

The following bibliographies have recently been issued by the Imperial Bureau of Plant Genetics (for crops other than herbage), School of Agriculture, Cambridge, England:

Wheat breeding bibliography. Part I.	30 p.	Price 1s. 6d.
Wheat breeding bibliography. Part II.	31 p.	2s. 6d.
Barley breeding bibliography.	24 p.	1s. 6d.
Lodging in cereals.	8 p.	6d.
Oat breeding bibliography.	21 p.	1s. 6d.
Rice breeding bibliography.	24 p.	1s. 6d.

In the Imperial Bureau of Animal Genetics, the University, Edinburgh, Scotland, there have been compiled this year the following bibliographies:

Bibliography on fur breeding. 37 p.
Bibliography on the genetics and sex physiology of the rabbit. 34 p.

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OFFERS

The Library of the College of Agriculture, University of Nebraska, Lincoln, has for sale the following volumes:

Hoard's Dairyman, v. 28, 29, 30 (1879-1899).
$3.50 per volume, express collect. (Bindor's binding, good condition)
Field Illustrated, v. 25, 27, 30 (1915, 1917, 1920).
$2.00 per volume, express collect.

The Oregon State Library, Salem, wishes to sell the following:

Herd Register of the American Jersey Cattle Club,
v. 80-85, 87-100.

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THE AGRICULTURAL EXPERIMENT STATION ANNUAL REPORT

Under the title "The Annual Report - An Enigma", Mr. Roger DeBaun, Vice President of the American Association of Agricultural College Editors, in the July issue of the A. C. E., discusses the results of a survey of the annual reports of the State stations which was made in May, 1931. The following extracts are taken from the introduction to the summary:

"Annual reports, originally designed to let the public know what was being done with its money, have long been the annoyance of many who write them and the plague of editors who have had to decide what to do with them. Shall the reports be a statement of one scientist to another, or a step by step report of progress to the public, or a thumbnail sketch of the more brilliant achievements of the institution, or some combination of these? Such are a few of the questions which many station editors have asked themselves. To make matters worse, it happens in some institutions that, regardless of what answer has been evolved, certain members of the staff have ideas that are different.

"Even at this late day there seems to be a great difference of opinion among staff members of the same institution and among various institutions as to whether the annual report is a statement to the taxpayers or a medium for distributing wisdom to brother scientists.

"In the aggregate a great deal of money and an immense amount of time is spent in turning out annual reports. It would seem that all of us should at least know what the others are doing.

"With all these things in mind, I proceeded to obtain information from experiment station editors. Thirty-two replies were received and from this excellent response one might hazard the guess that annual reports either are or have been a matter of keen interest to station editors."

The very great difference of opinion as to what the report should be is shown by the following excerpts from some of the comments of the editors: Missouri. "We find it very difficult to popularize the material. We have never succeeded in doing so"; New York (Geneva). "My personal feeling is that the report should be a brief administrative report by the director or an out and out popular review of the year's work, preferably the former. I have a feeling that much more effective distribution of information about the station's research work can be made than in a voluminous report, and the volume of the report can not be substantially curtailed if all the research departments are to summarize their activities. I have yet to be convinced that a shotgun type of report is worthwhile"; South Carolina."We make our report for popular appeal; many illustrations - minimum of technical discussion."

Station reports are also a concern of librarians and it would be interesting to know what kind of station reports librarians as a whole would prefer. If they have decided opinions on the subject it might be well for them to let their desires be known. It is believed that a good many of them, at least, would say that they would like them to contain an account of the work of the station, including progress reports on work already started, also lists of outside journals. From the point of view of most librarians, the popularizing of titles so that they will sound like something else than annual reports is not appreciated.

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SELECTED LIST OF MIMEOGRAPHED PUBLICATIONS
of the U. S. Department of Agriculture
issued during July-August, 1931, exclusive of current issues of serials.*

Bureau of Agricultural Economics

Cotton picking sacks; cotton picking sheets, and tarpaulins used on cotton farms of the United States - 1929. A preliminary report. By R. J. Cheatham and John T. Wigington. 11 p. (Issued by Division of cotton marketing)

Flour milling and bread making; a selected list of references. Compiled by C. Louise Phillips. 14 p. (Agricultural economics bibliography no. 2, supplement)

Government structure, powers and problems in the new rural municipality. By T. B. Manny. 6 p. (Issued by Division of farm population and rural life)

The insurance needs of agriculture. By V. M. Valgren. 10 p. (Issued by Division of agricultural finance)

List of cold storage warehouses and meat packing establishments reporting cold storage holdings to the Bureau of agricultural economics. Prepared by Wm. Broxton. 54 p. (Issued by Cold storage report section)

Methods used by Crop reporting board in estimating the cotton crop. By W. F. Callander and V. C. Childs. (Issued by Crop reporting board)

The competitive position of the dairy industry of New Zealand. 52 p. Report F. S. 54. (Issued by Division of statistical and historical research)

Coordination of farm management research in the western states. By C. L. Holmes. 13 p. (Issued by Division of farm management and costs)

Practices and costs in the development of pecan orchards and in the production of pecans. A preliminary report. By R. S. Washburn and B. H. Thibodeaux. 69 p. (Issued by Division of farm management and costs)

Production credit in agriculture with special reference to cooperation. By Eric Englund. 8 p.

A selected list of references on combine harvesting. By C. Louise Phillips. 10 p. (Issued by Grain division)

Tariff rates on representative agricultural products under tariff acts of 1930 and 1922. 43 p. (Issued by Division of statistical and historical research)

What is new in farm management research methodology? By C. L. Holmes. 9 p. (Issued by Division of farm management and costs)

*For a list of the principal series issued regularly, see v.4, no.1-2,p.347.

Bureau of Animal Industry

Character of marbling in its relation to palatability of beef ribs. A comparison of the ribs from seven cattle entered in the carcass contest of the 1930 international livestock exposition. 11 p. (Issued by Animal husbandry division, Bureau of animal industry, the Livestock, meats, and wool division, Bureau of agricultural economics, and the Food and nutrition division of the Bureau of home economics)

Control of liver flukes and fluke disease of sheep, goats and cattle. By Dr. Robert Jay. 6 p. (Issued by Zoological division)

Bureau of Chemistry and Soils

Excerpts from consular correspondence relating to insecticidal and fish-poison plants. By R. C. Roark. 39 p. (Issued by Insecticide division)

Publications of the Insecticide division. July 1, 1927 to June 30, 1931. 9 p. (Issued by Insecticide division)

The utilization of farm by-products. By Dr. W. W. Skinner. 11 p. (Issued by Division of chemical and technological research)

Bureau of Dairy Industry

Condensed and evaporated milk. 7 p. (Bureau of dairy industry circular no. BDIM-548)

Extension Service

County agent standards. By H. W. Gilbertson. 21 p. Extension service circular 158. (Issued by Office of cooperative extension work)

The effectiveness of extension work in home management; a study of 223 rural homes in Somerset and Gloucester counties, N. J., 1930. By M. C. Wilson, Mary A Rokahr, and Marion Butters. 30 p. Extension service circular 155. (Issued by Office of cooperative extension work)

Local leadership and its training in 4-H club work. Selections from extension reports for 1930. Compiled by Madge J. Reese and M. C. Wilson. 22 p. Extension service circular 165. (Issued by Office of cooperative extension work)

Local leadership in cooperative extension work. By Grace E. Frysinger. 6 p. (Issued by Office of cooperative extension work)

Opportunities for the older girl in the extension program. By Gertrude L. Warren. 10 p. Extension service circular 166. (Issued by Office of cooperative extension work)

SELECTED LIST OF MIMEOGRAPHED PUBLICATIONS

Extension Service
(cont'd)

The outlook in agriculture in relation to 4-H club work. By C. B. Smith. 6 p. Extension service 164. (Issued by Office of cooperative extension work)

Western states extension conference, Logan, Utah, July 21-25, 1931. 11 p. Extension service circular 169. (Issued by Office of cooperative extension work)

Office of Information

"Inject a shot of publicity and watch it grow." By M. S. Eisenhower. 23 p. Address before the meeting of the American association of agricultural college editors, Corvallis, Oregon, Aug. 11, 1931.

Bureau of Plant Industry

Pear blight. By. M. B. Waite. 2 p. (Issued by Division of horticultural crops and diseases)

A selected reference list of publications concerning citrus fruits, their culture, marketing and utilization. 5 p. (Issued by Division of horticultural crops and diseases)

Sesbania, a legume for green manure. By Roland McKee. 3 p. (Issued by Forage crops and diseases)

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HOPPER,

AGRICULTURAL LIBRARY NOTES

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AGRICULTURAL LIBRARY NOTES

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BOYCE THOMPSON INSTITUTE FOR PLANT RESEARCH LIBRARY

By Zeliaette Troy, Librarian

The Boyce Thompson Institute for Plant Research was established and endowed in Yonkers, New York, in 1921 by the late Colonel William Boyce Thompson. In a general way its organization resembles that of the Rockefeller Institute for Medical Research but it is unique in the field of botany, in its breadth and flexibility of purpose. While practical applications of the results found by the workers have been many, commercial profits are merely a by-product of the experiments, not the main end. Only projects whose solutions promise answers to fundamental scientific questions are undertaken and even when commercial concerns enter into affiliation with the Institute the work has to be of real scientific significance to be acceptable. The Managing Director with his board of scientific advisers is the last authority on what subjects will be worked upon. While all members of the staff may be consulted by any outsider and called upon to give information or advice, none of them is answerable to any one but the Director; naturally such a situation allows a freedom that is all too rare and has already proved its value in the results obtained. The scope of the project is very wide, ranging from the penetration of insecticides into the tracheae of injurious insects to the study of temperature and other conditions most favorable to the germination of various seeds; Doctor Kunkel's work on aster yellows is one of the classics on virus diseases in plants, while Doctor Denny's work in connection with the Herman Frasch Foundation ranks well amongst the investigations being made on the chemical changes going on inside of living plants. Doctor Arthur's study on the effect of ultra-violet and infra-red radiations upon plants is referred to by all comprehensive works on light effects. One of the best features of the Boyce Thompson Institute is its cooperative attack on any question. Biochemists are the partners of pathologists, physical chemists and entomologists work together, the mathematician is called upon on any or all problems and no results are ever published without first running the gauntlet of questions from everyone in the organization. There is none of the "genius in his lonely attic" about this organization.

With this hint of the variety of work and the method of attack one can easily see what an interesting place the library must be. While this is a so-called botanical institution, there is far more material in the library on chemistry and physics than on systematic botany, and an unbound report of a young obscure worker who is doing worth while things is of far more interest to the staff than the original editions of Linnaeus.

BOYCE THOMPSON INSTITUTE FOR PLANT RESEARCH LIBRARY
(cont'd)

When Doctor Crocker, the director, was abroad in 1921, he laid a very good foundation for the library collection by the purchase of many sets of periodicals which were on the market at the time. Later the purchase of Doctor Wolf's library in this country established a very good basis for the agricultural experiment station material. There is no set budget for the purchase of books and periodicals; purchases are made when the need is felt and in this way quite a good working collection has already been built up. As would be expected, the largest portion of the book expenditure is for periodicals, and gradually more journals are being secured as exchanges for the "Contributions from the Boyce Thompson Institute."

In May, 1931, the library was moved from its temporary quarters in the laboratory portion of the building to the new wing where it occupies the top two floors. A beautiful reading room with spacious room for thirty readers extends across the entire west end of the wing; windows on the three sides overlook several of Westchester's nicest views. The stack space has been kept in extremely simple arrangement so that the staff members will have no difficulty in finding things for themselves and desk space along all the north walls of the stacks offers added convenience. Vertical files with interior dimensions the same as large size "pam." boxes are ranged along the east walls of all stack levels and afford 684 running feet of filing space for "Pamphlets", seed catalogs, etc. A careful calculation of the average size of bound volumes in this particular collection showed that 6.6 volumes can be cared for on each running foot of shelves. With this unit as a basis, the present layout will care for 103,000 volumes and as the present collection is only 12,000 volumes this should allow for at least fifty years growth. While the general effect upon a casual visitor is one of beauty and comfort, the primary object of the whole arrangement was that of convenience and simplicity and if only six months of use can be considered as adequate time for proof, the plan is a success.

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COMMITTEE ON COOPERATIVE CATALOGUING

The American Library Association has appointed a Committee on Cooperative Cataloguing to make a study of the possibilities of extending cooperative cataloguing, particularly among the libraries of the country that deal with research material. The Committee, which has at its disposal a grant of $13,500 from the General Education Board, has been appointed in two groups - an Executive Committee and an Advisory Committee. As a preliminary to the Committee's study, sixty of the larger university and reference libraries of the country were recently asked to draw off a record, at the expense of the committee, on standard size cards, of five hundred titles catalogued by it during the calendar year 1930, giving a typical cross-section of the year's cataloguing with each class of material (subject, language, date of publication, those catalogued with Library of Congress cards, and those catalogued with the library's own typewritten or printed cards, or with printed cards from other sources, etc.) represented in approximately the same proportion as they were in the year's cataloguing as a whole.

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AGRICULTURE AS SEEN BY THE POPULAR MAGAZINES

By Janice S. Brown,
Library, U. S. Department of Agriculture

In this paper an attempt will be made to review a few interesting articles relating to agriculture that have appeared since the beginning of the year in the general monthly magazines of a popular nature. The stimulating opinions on agriculture found in weeklies like the New Republic, the Nation, and the Outlook, the facts discussed by the Literary Digest, the articles in the ubiquitous Saturday Evening Post and Collier's, will be omitted because of the wealth of material in the monthlies.

Even a cursory view of the large amount of general magazine material available in recent months about agriculture makes us see not only how much thought is being given to this fundamental industry but also what varied ideas make up the sum of opinion on the subject. Many articles deal with the industrial revolution: the effect of mechanization on the agricultural industry. Another group discusses the dilemma in which agriculture now finds itself: too much wheat with hunger staring many in the face, an oversupply of cotton with numbers of peoples in rags. The suggestions for trying to solve the agrarian problem range from reduction of acreage and renewed scientific effort on the part of the individual farmer to corporation farming on a huge scale. We find that agriculture is a burning question not only in the United States, but in England, Russia, Italy, Poland, Egypt, Rumania, Canada, to such a degree that discussions of the farmer's difficulties in all countries have found their way to English and American magazines.

In the March issue of Current History, Harold Underwood Faulkner of Smith College writes with refreshing detachment on "Farm machinery and the industrial revolution". He says that the McCormick reaper with its final evolution into the mighty combine more than any other machine made large scale agriculture possible. The interesting idea that the industrial revolution of the nineteenth century was dependent upon McCormick's machine is mentioned by this writer who shows that by the help of the reaper and the machines which evolved from it were the wheat farmers of the world and especially of the United States enabled to feed the hordes of workers in the new factories. Mr. Faulkner lists the presumably helpful accomplishments of agricultural machinery: it has released millions from other work; it set millions of acres used in raising fodder - for the now displaced horse - free for production of other commodities; it has increased the output per capita, enlarged the real income of proprietors and eliminated much drudgery. But, undeniably, it has increasingly separated the owner of the machinery from the labor, and it has resulted in overproduction.

L. F. Easterbrook in an article entitled "Possibilities of mechanical farming in England" in the Nineteenth Century for September speaks with regret of a bill to provide a million pounds for research in this field, which was defeated not long ago in the House of Lords. The object of the study was to have been to discover whether mechanization on a large scale would be justified in England.

Mr. Genung of the United States Department of Agriculture attributes agriculture's present plight to three basic factors, the first being mechanization, or in his words, "the near revolution in the technique of agricultural production." His discussion of "Post war depression in agriculture"

in Current History for March gives two other reasons: the drastic, worldwide decline in the general commodity price level - of primary importance, he thinks - and the turn of the business cycle.

"The wheat farmer's dilemma; notes from tractor land", by Avis D. Carlson in Harper's Magazine for July, gives a graphic and moving picture of the wheat farmer who, having survived the gruelling labor of the time before the combine and the tractor, and having invested thousands in expensive machinery that will produce much wheat with little effort, now finds himself confronted with a glutted market, a price too low to pay his expenses, and no hope for any immediate improvement. The cure most often advocated, to lower production, seems unreasonable to farmers who know that "to grow wheat in competition with the rest of the world they must have power machinery; to continue to use power machinery they must continue to grow a large quantity of wheat."

The other crop which is suffering the ills of superabundance is, of course, cotton. George W. Gray discusses "Embattled cotton" in the World's Work for September. Fifty years ago, he says, the United States furnished three-quarters of the world's cotton requirement. "Today our share is approximately forty per cent." This he lays to competition from Egypt, Russia, and especially India, which has in the last decade followed the precepts of science too long ignored by American cotton farmers in developing long fibered cotton from pure seed by scientific methods of production. Our yield per acre, too, has declined about twenty-seven per cent in thirty years. But the encouraging factor in the situation is that well directed efforts are under way in the south to improve quality and increase yield per acre. New uses are being found for cotton. Mr. Gray reaches the conclusion of many who discussed wheat: that the one hope of the farmer is to reduce the cost of production. Mechanical inventions may help cotton growers as they have the wheat producers.

This question of the "Farmers' way out" interests all writers on the situation. Theodore G. Joslin in an article with that title in the World's Work for February blames overproduction and faulty distribution for agriculture's present difficulties. The remedies he suggests are the time-honored ones: reduction of acreage, diversification of crops, and co-operative marketing. Walter B. Pitkin, writing in the August Forum, has a much more drastic theory. In the "Great dirt conspiracy" he insists that because production costs drop as acreage units increase in size, mass production in farming must follow mass production in industries. Russia, he says, has cut the cost of wheat production to seventy-five cents a bushel. Soon it will be less. That will fix market prices. "America can hold its own in the great tomorrow only by matching Russia's fifty-cent wheat with Kansas' fifty-cent wheat." Mr. Pitkin mentions in glowing terms the man who has made the most outstanding success in corporation farming, Thomas D. Campbell, who has run 95,000 acres in Montana like a huge factory and has made money. Edward Angley in a sketch of Mr. Campbell in the July Forum tells more in detail of the "master farmer", the man to whom Stalin listed for four hours as he discussed agriculture, wheat raising in particular, on a gigantic scale.

"Some of the corporation farmers in Kansas now claim to have cut the cost of raising wheat to forty-six cents a bushel," Wayne Gard points out in "Agriculture's industrial revolution" in Current History for September. Both Pitkin and Gard emphasize the necessity for meeting low selling prices with low costs of production. Both authors realize, too, the extent of opposition in the path of corporation farming - opposition which Pitkin bluntly says comes from small farmers and their political and business parasites. Gard says that the antagonism is chiefly emotional and is present because the demagogues say that the large-scale farm "threatens to remove the last bulwark of American individualism."

Senator Capper of Kansas in "What the farmer thinks" in the September Review of Reviews says that the farmer as never before is giving thought to his own problems. He is reducing his own expenses, studying the whole background of taxation, and considering the theory of the economic setup of America, especially the effectiveness of the leadership of wealth.

Charles A. Beard's "Five-year plan" for America in the July Forum provides for agriculture in point six: "A separate Agricultural Syndicate, to make a survey of the fertile regions, reforest sections now devoted to futile cultivation and plan new roads and power lines to develop the most productive parts of the country; large-scale corporate farming to be introduced where the old methods of farming are not profitable."

Pitkin's idea that millions of farmers may be forced to leave their rural homesteads for a not unhappier lot in the cities is reechoed with further implications by Ralph Aiken in the North American Review for October; "Immorality and the future for farmers". This writer's belief is that the mechanization of agriculture in forcing the strait-laced farmer to urban centres where morals are admittedly more lax may free us of what he calls "organized virtue."

"America's surplus cotton" gives Fred Henderson of the Industrial Labor party of Great Britain a chance to express his interesting views on our economic system in the Living Age for October. "Mankind has emerged from scarcity into a new age of plenty. But it is disabled from enjoying that plenty by clinging to an outworn economic system that cannot handle it, cannot distribute it, cannot apparently do anything with it except burn and destroy it as a nuisance and a curse.... We produce so abundantly that any poverty in the world is now a rediculous anachronism. But since the financial system cannot distribute our abundance effectively - and since it is evident that we exist to serve the needs of finance, and not finance to serve our human purposes - let us economize."

The one optimistic writer found was Edith F. Thompson in the July number of World's Work. Her view is that the "Farmers back to earth" feel that their situation is not entirely discouraging: the speculator has gone; the boom has ended; scientific management is the order of the day; more machinery means more crops - though what to do with the crops the writer does not say; the younger generation has buckled down to work.

"The country doctor", by Charles Morrow Wilson, and "The country school", by Richard B. Ransom in Current History for September tell of two interesting "Phases of life in rural America". The condition of the tenant farmer is touched upon briefly in several of the articles mentioned above, notably in the one by Gray about cotton. He reminds us that plans for reduced acreage and production must take the helpless tenant into account. Carlson writing in the July Harper's about the "Wheat farmer's dilemma" mentions the same problem.

The agricultural situation abroad as represented by the magazines gives food for further attention. Russia's great experiment attracts most notice perhaps. "The Soviet Union turns the corner", Handeville's account in the Contemporary Review for July of the accomplishments of the Five-year plan presents an impressive array of figures showing achievements. Basseches in the July Living Age describes the "Village revolution in Russia" and tells of the kulak's improving position on the collectivist farms. "Hespericus" writing in the September Fortnightly Review on the "Plight of the prairies - Canada's economic problems" moves us to sympathy with the wheat farmers there, where drought has worked havoc and distance from the markets of Europe is a great disadvantage. The growth of a radical agrarian party in Canada is understandable, therefore.

The Egyptian fellah as shown by F. M. Edwards in the Contemporary Review for August in the "Egyptian rural problem" is in as desperate a situation perhaps as any of the farm populations of the world. The land taxes, the increasing population, the subdivision by inheritance of land into smaller and smaller sections, the general failure to cooperate, and absence of initiative are contributing causes of this misery.

An excellent summary of the developments in the important European countries is given in Nathan S. Russell's "European farming in a new phase" in Current History for February. Mr. Russell tells how Europe is transforming her economic structure by agrarian reforms. "In Italy a vast scheme of ruralization has been put into operation, and a plan of interior colonization is being carried out." This is to offset industrial overproduction and unemployment. In Germany and France there has been no violent change of land tenure, but effort has been directed toward increased production per acre by employment of up-to-date methods of tilling and reaping. Russia of course is attempting machine farming on a large scale. In Poland the many small farms are becoming completely industrialized. Rumania has accomplished some much needed reforms in the division of land. Subject for debate might be found in Mr. Russell's final sentence: "Nations are learning to live within their own borders and by their own resources."

In fact, it seems that the only safe conclusion we may draw from current opinion as reflected in the general magazines is that there is no royal road to a panacea for agriculture.

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Bibliography on the biology of the fleece. Issued by the Imperial Bureau of Animal Genetics, University of Edinburgh, Scotland, 1931. 32 p. Price 2s. 6d.

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A list of American economic histories. Compiled by Everett E. Edwards, Division of Statistical and Historical Research, Bureau of Agricultural Economics, U. S. Department of Agriculture. Oct. 1931. 8 p. Mimeographed.

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Use of corn and corn products in the home; a partial list of references. Compiled in the Bureau of Home Economics, U. S. Department of Agriculture. 9 p. Mimeographed.

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Boyd, James A. Improvement of teachers in service in New Hampshire public schools.

Colovos, Nicholas F. Critique of method of collection of excreta in metabolism experiments with cows.

Dearborn, Roland B. The influence of pruning on the nutrition and function of the apple tree.

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Perkins, Anne. An analysis of canned fruits and vegetables.

Walker, Carl E. Land survey of the town of Durham, New Hampshire.

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RECENT LITERATURE ON PAPER MULCH

By Dr. L. H. Flint, Bureau of Plant Industry, U. S. Department of Agriculture.

Following the Department's publications on paper mulch in 1928 and 1929, there has appeared an increasing number of articles on this subject in various foreign periodicals. For the most part, the initial foreign articles were in the nature of popular news abstracts of the papers referred to above. More recently, however, there have appeared reports of experimental trials with paper mulch from such widely separated points as South Africa, Jamaica, Java, and various countries of Europe. These reports further involve such varied crop plants as those which supply us with tea, tobacco, vegetables, and fruits. Our own periodicals from time to time report the results of practical trials of paper mulch in the United States and it is thus apparent from the literature throughout the world that the method is being studied with a view to extending its usefulness in agriculture. After all, it would scarcely seem likely that a system which so generally brings about a crop plant stimulation would have an agricultural economy encompassed only in far-off Hawaii where its successful use was first demonstrated. Following is a selected list of the literature from 1928 to date.

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Starker, T. J. Mulching nursery transplants. Jour. Forestry, 29: 238-240. Feb. 1931. no. 2.

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Readings in Library Methods. By L. D. Arnett, Librarian, West Virginia University, and Ethel T. Arnett. 547 p. New York, G. E. Stechert & Co., 1931.

"The aim of this volume is to bring together articles and extracts relating to library practice and endeavor; together with some information in regard to the history and development of libraries. The selections are intended, chiefly, for the use of class-room students but are of value to any one interested in library problems. Most of them relating to library practice are printed in one or another of the library journals...The articles selected relate chiefly to approved methods of library practice- articles and suggestions which those contemplating library work as a profession should be familiar with."(Preface

The Story of a Village Community. By Henry O. Severance, Librarian, University of Missouri, with an introduction by Walter H. Burr, Professor of Rural Sociology. 178 p. New York, G. E. Stechert & Co.,1931.

"This is the story of the Town of Everyman. That Walled Lake, Michigan, is the setting for the story is only an incidental fact. There must needs be some sort of actual setting and Walled Lake makes a good stage for the drama. The characters are real characters and their names real names; yet other names might have been used - names that were on the rosters of other towns of the time - and they would have been the names of the same types of characters. Every man past fifty yearsof age, whose childhood days were spent in an American village, will recognize the story as a picture of his village and of his own boyhood. This is its universal appeal..." (Introduction)

References on Walled Lake: pp. 146-148.

Bibliography of villages and village communities: pp. 151-168.

Rural Vermont. A program for the future. By two hundred Vermonters. 385 p. Burlington, The Vermont Commission on Country Life, 1931.

The Vermont Commission on Country Life which prepared this volume was organized in April, 1928. The Director was Dr. Henry C. Taylor, former Chief of the Bureau of Agricultural Economics, U.S. Department of Agriculture. Chapter 14 is devoted to "Educational facilities"among which are the "Library facilities". It is stated than as an experiment a regional librarian has been appointed for intensive service in one of the districts. This librarian is to represent the Free Public Library Department of the state, but the experiment is financed for two years by the Carnegie-Corporation.

The Story of Agricultural Missions. By Benjamin H. Hunnicutt and William Watkins Reid. 180 p. New York, Missionary Education Movement of the U. S. and Canada, 1931.

One of a series of books planned by the Missionary Education Movement in the study of the relation of Christianity to rural questions throughout the world. Deals with the missions of India, China, Japan and Korea, the near East, Africa, South America, and Mexico.

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"Expansion, overproduction, unemployment, falling prices, agricultural failures - the familiar cycle of boom, deflation, depression - produced the Populist movement of the eighties and nineties. Its picturesque leaders from the South and West.... form a distinctive group in American Politics. The crusade they led for farm relief left permanent marks on business and political organization. Both their successes and their futures are worthy of careful consideration by a generation faced with similar problems. Professor Hicks has given us a comprehensive, unbiased and humanly interesting account of a significant movement." (Publishers)

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A book of farming people at work; sketches of the lives and opinions of forty-one men and women (all American except one) at various stages of a march from Pastoral to Machine-Age standards.

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One of a series of reports on the general subject of land utilization.

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Modern Agriculture. Based on "Essentials of the New Agriculture" by Henry Jackson Waters. By Waldo Ernest Grimes, Professor of Agricultural Economics, and Edwin Lee Holton, Professor of Education, Kansas State College of Agriculture and Applied Science. 632 p. il. Boston, Ginn & Co. 1931.

"A thorough revision of 'Essentials of the New Agriculture' by Henry Jackson Waters". In this revision the subject matter has been reorganized on the teaching unit-problem basis.

Making Farms Pay. A way out for owner and tenant. A narrative of personal experiences in managing 1000 farms. By Cornelius J. Claassen. Foreword by Wheeler McMillen. 126 p. il. New York, The Macmillan Company, 1931.

A book on the modern business of group farm management. "Describes the author's successful experience in managing one thousand tenant farms with profit to their owners and an entirely new standard of living for the tenants and their families who live on them."

The Modern Nursery. A guide to plant propagation, culture and handling. By Alex Laurie, Professor of Horticulture, and L. C. Chadwick, Assistant Professor of Horticulture, Ohio State University. 494 p. il.

The information presented in this book, covering the essential factors of modern nursery management, was "gleaned from personal experiences and experimental work as well as from the actual practices of up-to-date nurserymen throughout the United States."

Adventures in a Surburban Garden. By Louise Beebe Wilder. 250 p. il. New York, The Macmillan Company, 1931.

By the author of "Adventures in my garden and rock garden."

Modern Dahlia Culture. By W. H. Waite. 3d ed. rev. 123 p. il. New York, A. T. De La Mare Co., 1931.

The Home and the Child. Housing, furnishing, management, income, clothing. White House Conference on Child Health and Protection. Report of the subcommittee on housing and home management. Martha Van Rensselaer, Chairman. 165 p. il. New York, The Century Co., 1931.

References: 159-161.

Making Homes. By Hazel Shultz, recent head of the Department of Home Economics, the Laboratory Schools of the University of Chicago. 519 p. il. New York, D. Appleton & Company, 1931.

Intended for a first course in housing and homemaking at secondary level. It was largely developed during six years of teaching in the Laboratory Schools of the University of Chicago, though certain materials have been included as the result of public and technical school teaching as well as extension service work.

Bibliography: pp. 497-511.

Tables of Food Values. By Alice V. Bradley, Supervisor and Instructor of Nutrition and Health Education, State Teachers College, Santa Barbara, California. 128 p. Peoria, Ill., The Manual Arts Press, 1931.

In two parts. Part I. Food value of average servings of commonly used foods; Part II. Food value of 100-gram portions of commonly used foods.

Nutritional Physiology. By Percy Goldthwait Stiles, Assistant Professor of Physiology in Harvard University. 7th rev. ed. 313 p. il. Philadelphia, W. B. Saunders Company, 1931.

Swine Enterprises. By Arthur L. Anderson, Associate Professor of Animal Husbandry, Iowa State College. 458 p. il. Philadelphia, J. B. Lippincott Company, 1931. (Farm enterprise series)

"Written to meet most completely the needs of students both in vocational departments and others. The author has included a number of features most of which have not been found in former swine books: (1) Job analysis and problem method of setting up subject matter; (2) Statistical methods of proving teachings; (3) the latest station findings on all swine practices; (4) New feeding standards; (5) Standardized swine practices; (6) Production tests; (7) Local inquiries and activities; (8) Debates and discussions; (9) Available reference materials; (1) Illustrations selected for definite purposes; (11) Calculations to clinch points driven home." (Preface) The author has made the subject of swine husbandry a special study at the Iowa State College and Experiment Station for a number of years.

Poultry Enterprises. By Sherman Dickinson, Professor of Agricultural Education, University of Missouri, and Henry R. Lewis, President, The International Association of Poultry Instructors and investigators. 424 p. il. Philadelphia, J. B. Lippincott Company, 1931. (Farm Enterprise Series)

In this volume the authors "have analyzed the poultry business into twenty jobs. In each job a thorough analysis of the problems involved is presented and the aims of the jobs are clearly set forth in the light of the conditions usually found by students." (Preface)

Cooperation in Marketing Dairy Products. By Roland Willey Bartlett, Division of Agricultural Economics, University of Illinois. 299 p. Springfield, Ill., and Baltimore, Md., Charles C. Thomas, 1931.

Part I. Aims and agencies; Part II. Price plans. A bibliography is given after each part.

Making the Dairy Goat Pay. By Harry J. Smith. 159 p. il. Memphis, Tenn., The author, 1931.

Aims to show how the goat dairy may be made a profitable business as well as a profitable side line on the farm, and the adaptability of the dairy goat for back yard keeping.

In the Matter of the Investigation in Regard to Dried Egg Products. Brief on behalf of domestic producers. Before the United States Tariff Commission. 83 p. Washington, D. C., Chas. H. Potter & Co., 1931 (Investigation No. 42, Section 336, Tariff Act of 1930)

Preserving Foodstuffs by Quick Freezing and Refrigeration. A selection of authoritative articles and timely editorial comment from Food Industries reporting the best of modern practice in the scientific control of refrigeration. Quick freezing and cold storage. 227 p. il. New York, McGraw-Hill Pub. Co., 1931.

Baillière's Encyclopaedia of Scientific Agriculture. Edited by Herbert Hunter, School of Agriculture, Cambridge. 2 v. London, Baillière, Tindall & Cox, 1931.

"The object of this encyclopaedia is to present the various branches of agriculture in the new aspect they are gradually assuming under the influence of scientific enquiry, and to outline the changes in former practice rendered possible and necessary in the light of new knowledge. It consists of a number of leading articles and of descriptive matter which has been included to assist in the proper interpretation of technical matters. The ordinary operations and equipment of agriculture, which are comprehended in the term of 'husbandry', have been adequately described in works published previously, and, except where for special reasons it has been found necessary to supplement this information, the reader's acquaintance is assumed. Thus, the Encyclopaedia may justly claim to be an entirely new exposition. The main articles have been contributed by recognized authorities in this country and abroad and embody in a concise form a survey of the present-day position. But whilst envisaging the advantages which may justly be attributed to scientific investigation, they also aim at bringing into its proper relation to practice the rapidly increasing mass of valuable information contained in scientific journals and pamphlets, not always readily accessible to the layman. Throughout, an effort has been made to state in a readily intelligible manner the underlying principles on which the various lines of enquiry are based. Consequently, although the subject-matter is largely concerned with British agriculture, it is applicable in its broad outlines to Canada, New Zealand, Australia, and large areas of the United States of America and other countries characterized by a temperate climate. The requirements of both the student and of the farmer have been visualized in the preparation of this work... The whole is supplemented by abundant references to scientific publications wherever necessary so that the details of the various investigations upon which conclusions are based may be consulted without difficulty."

The introduction points out that there is included in the encyclopaedia no account of the breeds of livestock or livestock as such, "as this subject already has ample and up-to-date literature", but does include poultry, "which has become such an important, world-wide feature in agriculture in the last ten years." No attempt has been made to describe agricultural machinery as a whole, for this branch, like livestock, has already an up-to-date and comprehensive literature of its own. A few features which lend themselves to a description applicable as general principle, however, have been included in this account. The introduction further explains that the encyclopaedia "includes articles on some lines of enquiry that are only gradually receiving adequate attention from scientific workers, Such, for example, is meteorology, which is a fundamental factor in determining the geographical distribution of crops, whilst the influence of the weather on the incidence of plant diseases and insect pests is especially important." The article on winter hardiness and drought resistance in plants provides "a most interesting summary of the many physiological and chemical questions involved in the consideration of these highly interesting properties in plants - properties of considerable economic importance even in countries with a temperate climate."

Agricultural Policy in South Africa. By Hubert D. Leppan, Professor of Agricultural Economics, Pretoria University, Pretoria. 101 p. Johannesburg, S.A., The Central News Agency, Ltd., 1931.

Some of the features touched on are more fully dealt with in the author's "Agricultural development of arid and semi-arid regions - with special reference to South Africa", and in de Kock's "The economic history of South Africa". Parts of the discussion have previously appeared in articles by the author in the "Cape Times", "The Star", "The Farmers' Weekly", "The Veld", and "The Rand Daily Mail".

Co-operation in Danish Agriculture. By Harold Faber. An English adaptation of "Andelsbevoegelsen I Danmark" by H. Hertel, with a foreword by Sir E. J. Russell, Director of the Rothamsted Experimental Station, Harpenden. 2d ed. 188 p. London, New York, Toronto, Longmans Green & Co., 1931.

Datos sobre la Historia de la Agricultura de Puerto Rico antes de 1898. Por E. D. Colon. 302 p. San Juan, Puerto Rico, Tip. Castero, Fernández & Co., 1930.

Annales de la Commission Internationale d'Agriculture. L'État actuel de la coopération agricole dans les différents pays. 234 p. Paris, Bur. de la Commission spéciale de la coopération agricole prés C.I.A., 1931.

Denkschrift zur 70 jährigen Bestandesfeier der Höheren Bundes-Lehranstalt und Bundesversuchsstation für Wein-, Obst- und Gartenbau in Klosterneuburg, Oktober, 1930. 201 p. il. Wien, Verlag "Das Weinland" [1931].

Entstehung und Verbreitung des Pfluges. Von Paul Leser. 676 p. il. Münster i. W., Aschendorffsche Verlagsbuchhandlung, 1931. (Anthropos-Ethnologische Bibliothek...bd. III, 3. hft.)

Stations Expérimentales et Autres Institutions Officielles ou Privées s'Occupant du Développement et de l'Amélioration de l'Agriculture dans les Pays Chauds. 166 p. Rome, Institut International d'Agriculture, 1931.

Prices and Production. By Friedrich A. Hayek, Lecturer in Economics in the University of Vienna, Director of the Austrian Institut für Konjunkturforschung. With a foreword by Lionel Robbins, Professor of Economics in the University of London, 112 p. London, George Routledge & Sons, 1931.

Lectures delivered at the University of London during the academic year 1930-31.

Il Commercio del Grano. Ugo Caprara, Professor nel R. Ist. Sup. di Scienze Economiche e Commerciali di Firenze e nell Universita "Bocconi" di Milano. Parte Seconda: Il Mercato Italiano. 308 p. Milano, Industrie Grafiche Italiane Stucchi, 1931.

Leitfaden für den Bau und Einrichtung von Heissdampf-Gruben-Silos für Einsäuerung von Futterkartoffeln. Von Ernst Berendt, Spezialist für Konservierungs-und Gärtechnik im landwirtschaftlichen Bauwesen, Bremen. 66 p. Hannover, Verlag von M. and H. Schaper, 1931.

Annuals. Or flowers which can be grown from seed in one year. A lecture, with additions, delivered before the Royal Horticultural Society of England, February 10, 1931. By Leonard Sutton. 83 p. London, Simpkin Marshall, Ltd., 1931.

Lehrbuch des Obstbaus auf Physiologischer Grundlage. Dr. Fritz Kobel, Botaniker an der Schweizerischen Versuchsanstalt für Obst-, Wein-und Gartenbau in Wädenswil. 274 p. il. Berlin, Julius Springer, 1931.

An Introduction to the Literature of Vertebrate Zoology. Based chiefly on the titles in the Blacker Library of Zoology, the Emma Shearer Wood Library of Ornithology, the Bibliotheca Osleriana, and other libraries of McGill University, Montreal. Compiled and edited by Casey A. Wood, Collaborator, Division of Birds, Smithsonian Institution. London, Humphrey Milford; Oxford, Oxford University Press, 1931. 643 p.

The Standard Natural History from Amoeba to Man. Edited by W. P. Pycraft. 942 p. il. London and New York, Frederick Warne & Co., Ltd., 1931.

Written in popular style. The Editor, who is connected with the British Museum (Natural History), "one of the best known and most gifted writers on the subject of Natural History of the day, has brought together many distinguished authors from among his colleagues, each being an acknowledged authority on the group on which he writes."

The Insects and Other Invertebrates of Hawaiian Sugar Cane Fields. Compiled by Francis X. Williams. With an introduction by F. Muir, a chapter each on the soil fauna of sugar cane fields and on the nematodes attacking sugar cane roots by R.H. Van Zwaluwenburg, and records of introduction of beneficial insects into the Hawaiian Islands, by O. H. Sweezey. 400 p. Honolulu, Hawaii, Experiment Station of the Hawaiian Sugar Planters' Association, 1931.

Bibliography: p. 378-389.

La Descendance des Monstres de Phasmides. Par P. Cappe de Baillon. 116 p. il. Paris, Paul Lechevalier & Fils, 1931. (Encyclopédie Entomologique. Série A, XIV. Recherches sur la Tératologie des Insectes. II)

Dairy Bacteriology. By Orla-Jensen, Professor of Technical Biochemistry, Royal Technical College, Copenhagen. Translated from the Danish by P. S. Arup, Chief Analyst, Butter Testing Station, Department of Agriculture, Irish Free State. 2d English edition. 198 p. il. Philadelphia, P. Blakiston's Son & Co., 1931.

This edition is an "entirely new one, having been thoroughly revised and enlarged by about twenty-five pages in the process."

Milchwirtschaftliche Zeitfragen. 10 Vortrage, gehalten auf dem Fortbildungslehrgang für milchwirtschaftliche Fachbeamte. Veranstaltet an der Preussischen Versuchs-und Forschungsanstalt für Milchwirtschaft in Kiel vom Preussischen Ministerium für Landwirtschaft, Domanen und Forsten in Berlin. 171 p. Hannover, Verlag von M. and H. Schaper, 1931.

Handbuch für Butterhandel und-Produktion. Bearbeitet von Fachmännern mit der Redaktion des "Butter- u. Fettwarenverkehr". 448 p. Berlin, Verlag "Der Butter- und Fettwarenverkehr", 1931.

Traité de Microbiologie. Publié sous la direction de L. Nattan-Larrier, Professeur au Collège de France. Tome I. Immunité - Immunisation - Anaphylaxie - Champignons - Bactéries Pathogènes. 1099 p. il. Paris, G. Doin & Cie, 1931.

Krankheiten und Parasiten der Zierpflanzen. Ein Bestimmungs- und Nachschlagebuch für Biologen, Pflanzenärzte, Gärtner und Gartenfreunde. Von Dr. Karl Flachs, Regierungsrat an der Landesanstalt für Pflanzenbau u. Pflanzenschutz in Munchen. 558 p. il. Stuttgart, Eugen Ulmer, 1931.

Pflanzenernährung. Bearbeitet von K. Boresch, Tetschen Liebwerd; F. Dühring, Königsberg i. Pr.; E. K. Feichtinger, Wien; A. Gehring, Braunschweig; W. Halden, Graz; J. Hasenbäumer, Munster i. W.; E. Hiltner, München; F. Honcamp, Rostock I.M.; H. Neubauer, Dresden; E. Möller-Arnold, Breslau; H. Niklas, Weihenstephan/Freising i. Bay.; H. Pringsheim, Berlin; A. Rippel, Gottingen; A. Schäffner, Prag; C. Stapp, Berlin/Dahlem; A. Steingroever, Radebeul; H. Stremme, Danzig; H. Ullrich, Leipzig; H. Wiessmann, Kassel; M. v. Wrangell, Hohenheim. 945 p. il. Berlin, Julius Springer, 1931. (Handbuch der Pflanzenernährung und Düngerlehre. Hrs. g von Dr. F. Hon Camp. Erster Band)

An Introduction to Plant Physiology. By W. O. James, Oriel College, Oxford; University Demonstrator in Botany. 259 p. Oxford, Eng., The Clarendon Press, 1931.

Seeks to give a balanced account of the more elementary aspects of plant physiology. Writeen for readers of senior school or junior university status.

CONGRESSES AND CONFERENCES

The International Dairy Conference, Copenhagen, 1931. Conference Papers, nos. 1-135. English edition. Copenhagen, 1931.

First Section: Dairy cattle breeding and milk production. (Conference Papers, nos. 1-36)

Second Section: Chemistry, bacteriology, hygiene. (Conference Papers, nos. 37-77)

Third Section: Technique, industry, trade. (Conference Papers nos. 78-105)

Fourth Section: Organisation, legislation, control. (Conference Papers, nos. 106-129)

Fifth Section: Tropical dairy industry. (Conference Papers, nos. 130-135)

Congrès de la Colonisation Rurale, Alger, 26-29 Mai 1930. Alger, Ancienne Imprimerie Victor Heintz [1931]. (Centenaire de l'Algérie, Comité de l'Afrique Francaise)

Part I. Comptes-Rendus des Séances du Congrès.
Part II. Les Problèmes Économiques et Sociaux Posés par la Colonisation.
Part III. Monographies Algériennes.
Part IV. La Colonisation Rurale dans les Pays de Peuplement.

European Conference on Rural Hygiene. Report of the Preparatory Committee on the principles governing the organisation of medical assistance, the public health services and sanitation in rural districts. 62 p. Geneva, League of Nations, 1931. (Series of League of Nations Publications, III. Health, 1931. III. 7)

Fifth International Botanical Congress, Cambridge, 1930. Report of Proceedings. Edited for the Executive Committee by F. T. Brooks and T. F. Chipp, Hon. Secretaries. 680 p. Cambridge, University Press,1931.

Eleventh International Veterinary Congress, London, 1930. Reports. Vol. I. 467 p. London, John Bale, Sons & Danielsson, Ltd., 1931.

Vols. 2 and 3 had been previously received.

III° Congresso Nazionale di Chimica Pura ed Applicata. Atti. A cura del Prof. Domenico Marotta. Firenze e Toscana 26 Maggio-i Guigno 1929. 850 p. il. Roma, Tipografia Editrice Italia, 1930.

Empire Wool Conference, held at Melbourne on the 22,23,24 June, 1931. Report.14 p. Hobart, Australia, The Tasmanian Farmers', Stockowners' and Orchardists' Ass'n, 1931.

Deuxième Conférence Internationale et Congrès Colonial du Rat et de la Peste, Paris, 7-13 Octobre 1931. 14 p. Paris, Vigot Frères, 1931.

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MISCELLANY

Among the interesting articles in the College and Reference Library Yearbook, no. 3, 1931 (compiled by a Committee of the College and Reference Section of the American Library Association) are the following: "Progress, Ideals and Standards in Liberal Arts College Libraries" by Julian S. Fowler; "Progress, Ideals and Standards in Reference Libraries" by Robert J. Usher; "Bibliography of American College Library Administration" by Dorothy A. Plum; "A Study of What the College Student Knows of his Library" by Linda M. Clatworthy.

In Library Notes, vol. 10, no. 1, September, 1931, of the North Carolina College for Women Library, there is an article entitled "The Bookworm's Little Sister". The article relates to the mutilation of books and periodicals by students in order to obtain material and illustrations for their note books, and suggests a solution of the problem. "Cutworm" is the pet name which librarians apply to the student who shares in the mutilation of books and identifies her as the Bookworm's little sister.

A graphic summary of American agriculture, including 360 maps and charts based principally on the 1925 census and on other data gathered by the Bureau of Agricultural Economics has just been issued by the U. S. Department of Agriculture as Miscellaneous Publication 105. The present status and recent changes in agriculture are shown in this bulletin in condensed form. The summary includes a graphic presentation of physical conditions in agriculture, land utilization and crops, farm animals and tractors, farm expenditures, cooperative marketing and purchasing, number and size of farms, value of farm property, farm mortgage debt, farm taxation, farm tenure, farm labor, farm population, and roads.

In the Sewanee Review for October-December, 1931, v. 39, no. 4 (whole no. 156), p. 472-483, there is an article entitled "Farm life fiction reaches maturity" by Miss Caroline B. Sherman, Editor of the Bureau of Agricultural Economics of the U. S. Department of Agriculture. This is an expansion of the article by Miss Sherman entitled "Farm life fiction in the United States" which appeared in Agricultural Library Notes for October-December, 1930, v. 5, no. 10-12.

The 8th annual conference of the English Association of Special Libraries and Information Bureaus was held at Lady Margaret Hall, Oxford, England, on Sept. 18-21. Among the papers presented was one by Dr. A. Preeder, Director of the Library of the Technische Hochschule, Berlin, describing an everready printed catalogue, and a discussion of the value of films as a medium of information in education, science, and industry, by Mr. F. A. Hoare.

A contribution to the history of the experiment station movement is the "Brief History of the South Carolina Experiment Station" which has been published as Circular 44 of the Station. The circular was prepared by Mr. A. G. Aull, Assistant Director of the Station.

"The History and Objectives of Outlook Work" is the title of an address given at the Western Regional Outlook Conference, Salt Lake City, Utah, July 28, 1931, by H. R. Tolley, Director of the Giannini Foundation of Agricultural Economics, University of California, Berkeley. The address is available in mimeographed form.

The University of Maryland has recently issued a "Handbook of the Library", a pamphlet of 27 pages. In addition to the many other interesting items, there is a list of the serials currently received at the library and by the departments of the University. A diagram of the reading room is contained on the inside cover page.

The Executive Committee of the Land Grant Colleges and Universities has arranged for an address at the next General Session by Professor George A. Works, formerly head of the School of Library Science at the University of Chicago. Professor Works will speak on the libraries of the land grant colleges.

In Science, vol. 74, no. 1916, September 18, 1931, there is printed the address of Prof. Russell H. Chittenden, Yale University, entitled "Plant Sciences in the Sheffield Scientific School", delivered at the Conference for Investigators Interested in the Chemistry and Physiology of Plants at New Haven Conn., June 5, 1931; the issue of the following week (vol. 74, no. 1917, September 23, 1931) contains the address entitled "The Scientific World-Picture of To-Day" given by General J. C. Smuts, President of the British Association for the Advancement of Science, London, September 23, 1931; and in the issue for October 2, 1931, vol. 74, no. 1918, there is an article of interest to librarians, entitled "More About Citations", by Bernard H. Lane, Editor of the U. S. Geological Survey. The latter article supplements an article by Mr. Lane on "A Uniform Scheme for Citations" which appeared in Science for April 10, 1931, pp.390-392.

The Payne Foundation of New York has given money for two scholarships to be given to the two 4-H Club winners graduating from college each year who stand highest in various phases of 4-H Club work. These scholarships are for the study of the U. S. Department of Agriculture and other governmental activities. The first winners of the scholarships were Mary Todd, a graduate of the University of Georgia, and Andy Colebank, a graduate of the University of Tennessee. They arrived in the Department October first. The greater part of their time will be spent in studying the work of the various bureaus and offices, including the Library, and in research, but each will devote some time to academic study either in the Department's graduate school or in some of the educational institutions of Washington.

"The John's Island Stud (South Carolina), 1750-1788" is the title of a recent privately published volume by Mr. Fairfax Harrison, Belvoir, Fauquier County, Virginia. Similar works entitled "The Belair Stud, 1747-1761" and "The Roanoke Stud, 1795-1833" were published by Mr. Harrison in 1929 and 1930 respectively.

The Carnegie Corporation of New York has issued a "Report of informal conferences on library interests, December 8, 1930, February 24, 1931, April 27, 1931". At the first conference subcommittees were appointed to report on "Relations of the Carnegie Corporation to education for librarianship and to building up the library profession", "Carnegie Corporation grants for development of college libraries", "Relations of the Carnegie Corporation to library fellowships", "School library service", and "Relations of the Carnegie Corporation to library organizations other than the American Library Association". The reports of these subcommittees are included as appendices to the complete report.

The George Washington Bicentennial Commission (Washington Building, Washington, D. C) has published the following pamphlets which may be obtained upon request: "Washington the Farmer" by Albert Bushnell Hart, and "Washington, Proprietor of Mount Vernon", by James Hosmer Penniman. The pamphlets are included in the "Honor to George Washington Series" edited by Albert Bushnell Hart.

An author and subject index to the Journal of Agricultural Science, covering the period 1905-1930 (volume 1-20) is in the course of compilation and will be issued early in the new year. It will consist of approximately 60 pages and the price will be about 3s. 6d. (paper covers). Orders for the index should be sent to the University Press, Cambridge, England.

Among the interesting articles in Agricultural History for October, 1931, are "Drought and agriculture in eastern South Dakota during the eighteen nineties", by Herbert S. Schell, Associate Professor of American History, University of South Dakota, and "John Wynn Baker: an 'improver' in eighteenth century Ireland", by G. E. Fussell, of the Great Britain Ministry of Agriculture and Fisheries.

The editorial in the Experiment Station Record, vol. 65, no. 7, November, 1931, relates to the passing of two more eminent pioneers in agricultural science - Dr. Stephen Moulton Babcock, who died in Madison, Wisconsin, July 1, at the age of eighty-eight years, and Dr. William Jasper Spillman, principal agriculturist in the U. S. Department of Agriculture, who died July 11 in Washington, D. C.

Miss Hattie Smith, Assistant Librarian of the Utah State Agricultural College, was elected President of the Utah State Librarians' Association at the recent (October 3, 1931) meetings held in Salt Lake City.

NOTES ON PERIODICALS

American steel and wire company. Crop report. Chicago. Discontinued with June 6, 1931.

Anglo-International bank limited. Monthly review of Central Europe. London, Changed to Anglo-International bank limited. Quarterly review, with Jan. 1931.

Banco de reserva del Peru. Boletin. Lima, Peru, mo. 4°. Aug. 1931.

Boletín agrícola. San Juan, Puerto Rico. w. 4°. v. 1, no. 1, Aug. 15, 1931. Successor to Revista de agricultura de Puerto Rico. (Publicación official... Departmento de agricultura y comercio dė Puerto Rico)

Co-operative. San Francisco, Calif. Changed to Pacific marketing journal with v. 1, no. 11, Oct. 1931.

Flavoring extract journal. New York. Discontinued with v. 4, no. 4, Apr. 1931. Absorbed by Spice mill, May, 1931.

The Glass container. New York. Discontinued with v. 10, no. 7, May, 1931. Absorbed by Glass packer, which continued under title Glass packer, with which is combined Glass container.

Horticultural abstracts. Imperial bureau of fruit production, East Malling, Kent, Eng. quar. 8°. v. 1, no. 1, Mar. 1931.

Industria. La Paz, Bolivia. 4°. il. año. 1, no. 1, July, 1931.

Loudoun-Fauquier breeders' magazine. Middleburg, Va. Changed to Loudoun-Fauquier magazine with v. 2, no. 3, Summer issue, 1931.

Die phosphorsäure; zeitschrift für phosphorsäurefragen. Verlag für bodenkultur G.m.b.H., Berlin. mo. 8°. il. 1931, hft. 1.

La revue des éleveurs. Beauceville, Que. Changed to La vie rurale with v. 7, no. 1, Aug. 1931

Textile mercury. Manchester, Eng. With v. 84, no. 2192, Mar. 20, 1931, absorbed Textile argus and continued as Textile mercury and argus.

Western confectioner. San Francisco. Changed to Western confectioner ice cream news with v. 17, no. 9, June, 1931.

Zeitschrift für ernährung; mitteilungen über das gesamte ernährungswesen in forschung und praxis. Johann A. Barth, Salomonstr. 18 B, C. 1. Leipzig. mo. 8°. il. v. 1, no. 1, Jan. 1931.

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OFFERS

The Agricultural Library, Pennsylvania State College, offers for sale or exchange the following:

American Pomological Society, Proceedings, 1875, 1877, 1883, 1885, 1889, 1891, 1895, 1899, 1897, 1901, 1903, 1905, 1909, 1913, 1915. Also a bound volume containing 1895-1903.

The U. S. Department of Agriculture has for exchange the following item:

Briggs, George R. Gardening in the South. New York, A. T. De La Mare, 1931.

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WANTS

The Library of the Giannini Foundation of Agricultural Economics, University of California, Berkeley, wishes to obtain copies of the following agricultural experiment station publications:

Arizona. Bul. 49, 85, 96.
Arkansas. Bul. 174, 218.
Colorado. Bul. 108, 353.
Connecticut (Storrs). Bul. 38.
Idaho. Bul. 54.
Illinois. Bul. 50, 244, 252
Indiana. Bul. 89, 144, 134, 196, 272, 295
Kansas. Bul. 181, 184
Louisiana. Bul. 102
Maine. Bul. 15 (2d ser.)
Maryland. Bul. 97, 116, 307
Michigan. Bul. 276; Spec. bul. 9, 94, 112, 116, 129, 130, 131, 170, 189; Tech. bul. 81, 91, 96
Minnesota. Bul. 124
Mississippi. Bul. 229, 249, 268
Missouri. Bul. 159, 165, 219; Research bul. 74
New Hampshire. Bul. 223
New Jersey. Bul. 294, 312, 320, 329, 353, 451, 452, 454, 457, 477, 487; Cir. 212
New Mexico. Bul. 130
New York (Cornell). Bul. 52, 211, 212, 226, 271, 377, 405, 409, 427, 438; Memoirs, 22, 28
New York (Geneva). Bul. (new series) 77, 78, 79, 89
North Carolina. Bul. 202, 244, 251, 253, 254, 258, 267
North Dakota. Bul. 22, 175, 199; Circ. 38
Ohio. Bul. (2d series) 75, 88, 200, 443
Oregon. Bul. 51, 65, 96, 99, 101, 109, 140, 181
Pennsylvania. Bul. 37, 175, 198, 211, 214, 219, 222, 223
South Carolina. Bul. 221
South Dakota. Bul. 46
Texas. Bul. 26, 47, 148
Utah. Bul. 40
Vermont. Bul. 100
Virginia. Bul. 151, 170, 175
Washington. Bul. 78; Pop. Bul. 11; Bul. Spec. ser. 8
West Virginia. Bul. 4, 13, 143, 144, 147, 148, 151, 163, 187, 188
Wisconsin. Bul. 140

The Agricultural Library, Pennsylvania State College, is desirous of obtaining the following:

American Pomological Society, Proceedings, vol. 1-2, 4-12 (1850-1852, 1856-69)

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SELECTED LIST OF MIMEOGRAPHED PUBLICATIONS
of the U. S. Department of Agriculture
issued during September-October, 1931, exclusive of current issues of serials.*

Bureau of Agricultural Economics

Agricultural economic reports and services of the Bureau of agricultural economics. 42 p. (Issued by Division of economic information)

Conditions affecting agriculture in the lower Rio Grande valley of Texas. A short statement of interest to prospective purchasers of land. 14 p. (Prepared in the Division of land economics)

Grade and staple of Louisiana cotton - crops of 1928 and 1929. A preliminary report. By W. B. Lanham and J. L. McCollum. 14 p. (Issued by Division of cotton marketing)

Grade and staple of Mississippi cotton - crops of 1928 and 1929. A preliminary report. By W. B. Lanham and R. E. Betts. 19 p. (Issued by Division of cotton marketing)

Grade and staple of Tennessee cotton - crops of 1928, 1929 and 1930. A preliminary report. By W. B. Lanham and J. L. McCollum. 13 p. (Issued by Division of cotton marketing)

A list of American economic histories. Compiled by Everett E. Edwards. 8 p. (Issued by Division of statistical and historical research)

Rules and regulations of the Secretary of agriculture governing the grading and certification of canned fruits and vegetables. Under an act of Congress approved Feb. 23, 1931. 12 p.

Bureau of Agricultural Engineering

Driers for seed cotton. 10 p.

Bureau of Animal Industry

Progress report of turkey investigations at the U. S. Range livestock experiment station, Miles City, Montana. By S. J. Marsden. 19 p. (Issued by Animal husbandry division)

Bureau of Biological Survey

The present status of American wild fowl. 9 p.
Address by Paul G. Redington before the Conference of the International association of game, fish, and conservation commissioners, held at Hot Springs, Ark., Sept. 24-25, 1931.

Bureau of Chemistry and Soils

Articles by members of the staff of the Bureau of chemistry and soils in outside publications, Oct. 1927-April, 1931. 33 p.

The food value of oranges and grapefruit. By D. Breese Jones. 12 p. (Issued by Protein and nutrition division.

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*For a list of the principal series issued regularly, see v. 4, no.1-2,p.347.

SELECTED LIST OF MIMEOGRAPHED PUBLICATIONS

Bureau of Chemistry and Soils
(cont'd)

The importance of soil conservation. By H. H. Bennett. Statement outlining the seriousness of soil erosion and the necessity for combating the evil. 12 p.
Address delivered before the 29th annual session of the North Carolina farmers' and farm women's convention, at Raleigh, N. C., July 29, 1931.

Coconuts and coconut products (not including coconut oil). A selected bibliography compiled by V. A. Pease. 7 p. (Issued by Food research division)

Bureau of Dairy Industry

Casein - an important milk product. 3 p.

Extension Service

Basic factors governing home demonstration work. Central states, 1930. By Grace E. Frysinger. 49 p. (Issued by Office of cooperative extension work)

Home demonstration work. Central states, 1930. 26 p. (Issued by Office of cooperative extension work)

Home demonstration work. Eastern states, 1930. By Florence L. Hall. 12 p. (Issued by Office of cooperative extension work)

Household accounts and budgets; excerpts from 1930 annual reports of state and county extension agents. Compiled by Mary Rokahr and M. C. Wilson. 11 p. Extension service circular 171. (Issued by Office of cooperative extension work)

News item from the 1930 home furnishing annual reports. 4 p. (Issued by Office of cooperative extension work)

News items from the 1930 home management annual reports. 6 p.

The outlook for land utilization in the United States. By O. E. Baker. 33 p. (Issued by Office of Cooperative extension work)
Addresses presented at State leaders' conference, Fifth national farm boys' and girls' 4-H club camp, Washington, D.C., June 17,18,19 and 20, 1931.

Results of the five-year wheat-belt extension program. A study of 343 farms in Ford and Pawnee counties, Kansas, 1930. By M. C. Wilson and C. R. Jaccard. 36 p. Extension service circular 163. (Issued by Office of cooperative extension work)

SELECTED LIST OF MIMEOGRAPHED PUBLICATIONS

Forest Service

Radio communication in the national forests. By D. L. Beatty. 27 p.

Grain Futures Administration

Spot prices, wheat and corn. 1879 - 52 years - 1930. Monthly high and low prices contract wheat and corn at Chicago. 13 p.

Bureau of Home Economics

Ripe and canned tomato recipes. 9 p.

Tropical and oriental vegetables, fruits, and nuts, proximate composition; selected list of references. Georgian Adams and Charlotte Chatfield. 11 p. Home economics bibliography no. 7. (Issued by Division of foods and nutrition)

Use of corn and corn products in the home; a partial list of references. 9 p.

Bureau of Plant Industry

Preliminary estimates of crop losses. 1930. 22 p. (Issued by Division of mycology and disease survey)

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AGRICULTURAL LIBRARY NOTES

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ISSUED MONTHLY
BY THE
UNITED STATES DEPARTMENT OF AGRICULTURE LIBRARY
WITH THE COOPERATION OF THE LAND GRANT COLLEGE
AND STATE AGRICULTURAL EXPERIMENT STATION LIBRARIES
WASHINGTON
D.C.

AGRICULTURAL LIBRARY NOTES

Vol. 6 December, 1931 No. 12

THE SURVEY OF THE LAND-GRANT COLLEGE AND UNIVERSITY LIBRARIES*

By Dr. George A. Works, Dean of Students and University Examiner,
The University of Chicago.

No attempt will be made in this paper to review as a whole the study which was made of the libraries in connection with the survey of the land-grant colleges and universities. Such a review would take more time than would be appropriate. Furthermore, it would serve no valuable purpose. Instead of such a complete analysis I shall do the following three things:

1. Commend the piece of work as a whole. In my opinion, Mr. C. H. Brown has rendered a signal service to the executives of the land-grant colleges by his careful analysis of the library conditions he found in these institutions. Your obligation to him does not end with the analysis. He has stated clearly and directly the changes that in his opinion should be made if the unsatisfactory conditions which he found, all too frequently, are to be remedied. Regardless of what you may do with the rest of the report you cannot afford to fail to read the portion that deals with the library.

2. Endeavor to reinforce a few of the points made in Mr. Brown's report. The ones that have been chosen are those that appeal to me as being especially significant if the library is to actually assume the place in the life of the university or college that we commonly give it when the subject is considered in the abstract. The college library suffers from too much lip service. Especially is this true in the separate land-grant colleges.

3. Point out some respects in which I differ from the report at least in emphasis if not in more fundamental respects.

No effort will be made to completely segregate the treatment of the last two phases.

The report properly emphasizes the importance of a qualified personnel if the library is to adequately serve its constituency. The inefficiency of the staff found to characterize too many of the libraries is partially explained by the relatively poor salaries paid in many libraries. However, it is my opinion that increase of funds alone would not remedy this situation. In discussing the possibility of remedying the unsatisfactory conditions that were found in some of the libraries the report states that "The chief difficulty in definite recommendations as to library staff is the question of what to do with the present librarian and library assistants when they are not qualified for the positions they are holding." In my opinion a more serious difficulty is the fact that there is not available an adequate supply of persons to fill the vacancies that would result from the removal of the incompetent. If every college and uni-

* Address given at the Convention of the Association of Land-Grant Colleges and Universities, Stevens Hotel, Chicago, Illinois, November 17, 1931.

versity executive who does not have an adequate library staff were to be convinced today of the need of a better library personnel and given funds to pay appropriate amounts for such persons they would not be able to find the personnel. I am confident that many presidents who know what is desirable in the way of a librarian will bear testimony to the difficulty they have met in endeavoring to locate the librarians capable of handling a college or university library and doing it according to the standards set by Mr. Brown. Good librarians are not available in sufficient numbers to meet the demand that actually exists even under present conditions. Money alone will not correct this condition, at least not immediately.

I think that college and university administrators would agree in the main on theoretical grounds in placing on librarians all the responsibilities recommended in the report. Certainly not all would agree to accept these views as long as they have their present library staffs. In this they are right. Too frequently these staffs would not be able to measure up to the demands of the positions as set forth by Mr. Brown.

This situation should not, however, be used as an argument for perpetuating present conditions. The position of librarian must be made a responsible one and the powers he is given should be commensurate with the responsibilities of the position. Strong men and women will not be drawn to a field of endeavor in which they find but limited opportunity for the exercise of their powers. The changes needed by way of increase in the powers of the librarian will of necessity have to come gradually, and in the same manner will come the supply of capable individuals.

A second element is involved in the reform of the library. The report touches upon this phase in the discussion of the training of librarians. Reference is made to the dearth of library workers who have had training in science. Also, to their inability to approach their problems in an objective manner. In my opinion, these criticisms do not go far enough. Mr. Brown lays a great deal of emphasis on the need of the year of professional training. I should attach much more weight to the reformation of this training than does Mr. Brown.

I belong to a profession that is guilty of making a new course every time it has a fraction of an idea, but the library profession has gone the professional educator one better. It has not only made many courses but it has also placed this training on an extremely formal basis. The present professional training of the librarian places too much emphasis on methods and not enough on principles. There can be no true library profession grounded on rule-of-thumb procedures.

But, I would not leave you with the impression that I believe all the responsibility for the unsatisfactory conditions found in many libraries is due entirely to the selection and training of persons for the library profession. Some persons of ability are drawn to the service ignorant of the limitations they will find imposed on their abilities in many colleges and universities. Being persons of capacity for growth they rise above their training. Such persons will do excellent work when they find themselves as librarians in a college or university that has an executive head who has an appreciative understanding of the place of the li-

brary in the institution and who gives the librarian the support both financial and moral that it should have from the president. Too many presidents do not have sufficient acquaintance with the functions of a library to give it support of this character. They do not understand its place in the program of the institution as they do that of a major division, school, or college. Furthermore, some of them are not disturbed by this fact. In my opinion they should not rest until they have made themselves as thoroughly familiar with the library problems as they are with those of any other major division of the college or university over which they preside. This report by Mr. Brown will make it far easier than has been true in the past for you to remedy these weaknesses. The pioneer days of land-grant colleges are past. The faculty member who has had his preparation to teach agriculture, home economics, or engineering in recent years is making demands on the library that are far in excess of those made by most persons who began their work in these fields thirty years ago. The institutions that have prepared themselves for this day by collecting rich library resources for teaching and research will find it easier to draw and hold the more competent of the oncoming generation of teachers and investigators.

The report touches on a vital point that is too frequently overlooked by both college and university presidents and librarians in pointing out the distinction between centralization of books and the centralization of the responsibility for the library service in an institution. It is clear that for some institutions it is both impracticable and undesirable to bring the printed resources of the institution together in one place. However, it seems to me that the responsibility for these resources should be centralized in the hands of one person - the librarian. All too frequently small collections of books and periodicals will be found scattered over the campus with no provision for making them readily available to the entire college or university community and even without any provision by which the prospective user can go to a single place of record to determine whether or not the desired publication is in the possession of the institution.

The report calls attention to the inadequacy of the collection of periodical literature in two fields. Other studies that have been made show the frequency with which gaps are to be found in sets of periodicals. This situation is contributed to by the failure to fix responsibility for the maintenance of the continuity of accessions of periodicals. If periodicals go directly to departments and remain there for some months before they are turned over to the librarian, as is still true in some land-grant colleges, numbers are certain to be missing when the time comes for the volume to go to the bindery. Time is lost and extra expenses are incurred as a result. Again, the passing whim of a member of the teaching staff may result in a break in a serial that frequently cannot be corrected when it later becomes desirable to do so.

As a result of a study made for the Carnegie Corporation of college and university libraries I was led to make the following statements regarding the centralization of responsibilities in the hands of the librarian:

1. All books purchased should be a part of the general library.
2. Purchases of printed resources will be made by the librarian. (This should not exclude the faculty from the decisions with reference to what shall be purchased)
3. All materials should be cataloged by the general library.
4. The cards for books should be found both in the general and in the departmental libraries.
5. The librarian should have the responsibility for determining the hours that each departmental library is open. (This responsibility should perhaps be shared with the department or departments involved)
6. The librarian should be charged with the responsibility of selecting the persons in charge of the branch libraries. (It may be desirable to have this done with the approval of the department or departments concerned)
7. Those in charge of branch libraries should be on the pay-roll of the library.
8. The librarian should have authority to transfer books to the branch libraries when in his judgment they will better serve the needs of students and faculty by being placed in the branches. (There will of necessity be some restriction on the removal of certain kinds of books from the central library)
9. Provisions should be made for telephone and adequate messenger service. The messenger service should not only include services at stated intervals but also for emergencies. In the large institutions it should include a truck which is entirely at the disposal of the library.
10. College libraries should have no different administrative relationship to the central library from that of the other libraries. Provision may be made for giving them a larger degree of autonomy than is desirable for departments. This may be done by having them carry an item in their budget for library purchases, by making provision for a library committee for the college, etc.

I repeat them today for two reasons: First, observations of library conditions made in a number of higher institutions since the above was written has only confirmed in my mind the validity of the suggested policies. Second, in one respect they go somewhat further than do the recommendations of the survey. Reference is made to placing all who are responsible for library duties on the budget of the library.

When frankly facing the conditions in a given institution one must acknowledge that the library personnel is not of such character as to make it practicable to recognize these policies. In his report, Mr. Brown gives consideration to this fact and makes some constructive suggestions. Personally, I cannot take very seriously his statement that persons who have proved incompetent in the library might be transferred to other divisions of the institution as in any large measure meeting this problem. I have seen too many cases of libraries that were suffering from the reversal of

the process to recommend it to you for serious consideration. The remedying of these conditions for reasons which have already been given will have to be a gradual process. However, this should not be interpreted as a basis for failing to make changes in library personnel that is inadequate when a capable person can be obtained. The library is too important in any real college or university to have its usefulness, present or future, jeopardized by the incompetency of a single individual.

The report on one point is not so definite as I wish it were. It is not entirely clear just how much authority Mr. Brown would give to the librarian in the selection of books. The following statement is made: "The librarian, since he is responsible for the effectiveness of the library, should exercise final authority over book purchases." I have already indicated that I believe in making the position of librarian a responsible one, but I should not like to carry this to such a point that faculty members were not positive factors in the development of book collections. Most of the notable collections to be found in college or university libraries have centered around the personality of some great teacher or investigator. The increased specialization of research will, in my judgment, accentuate this even further. I should hope that the powers of the librarian would not be extended to the point that uniformity in the collection of the printed resources would result in mediocrity. This does not gainsay the view that the librarian should have final power in the purchase of books of reference and those needed for the general library use, but I should hope that he would find his largest usefulness in the building up of special collections by working through rather than over the real scholars of the college or university.

The day has come when any good land-grant college must have a good library, adequate for need of both student and scholar. Such libraries where they are lacking can be obtained only by the combined activities of faculty and librarian supported by the intelligent sympathy of the president.

EDITORIAL NOTE: Although the Survey of the libraries of the land-grant colleges and universities and the comments of Doctor Works and Doctor Klein are in many respects discouraging, there are also reasons for encouragement, as intimated by Miss Feldkamp in the conclusion of her paper on the recent meeting of the Association of Land-Grant Colleges and Universities, in this issue of Agricultural Library Notes. As far as the findings of the Survey are concerned, it may be said that "the worst is now known" and it is helpful always in dealing with a problem to have a thorough knowledge of the conditions. One can then tell better what remedies are demanded. Furthermore the standards which have been set up in the Survey of the libraries will undoubtedly strengthen the position of the librarians in their demands for increased appropriations for books and trained assistants. Finally, there is much reason for encouragement in the fact that the Association of Land-Grant Colleges and Universities was willing to devote some of the time of its last meeting to the subject of libraries in these institutions and that men like Doctor Klein and Doctor Works are so forcibly calling the needs of libraries to the attention of the Association.

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"PLANNING AND KNOWLEDGE"

The following extract is from an article with the title given above which appeared in the Medical Officer, London, November 21, 1931, page 219, regarding the need of a compendium of existing knowledge in each science:

"A glance down the bibliographies usually appended to scientific papers is apt to leave the reader a little envious of the leisure that so much erudition indicates; for all students know that in the making of new books lies a potent cause of the much study that is a weariness of the flesh. Speaking at Oxford recently, Sir Frederic Nathan said that it is estimated that between thirteen and fourteen thousand books dealing with scientific and technical subjects are published each year, while probably about three-quarters of a million papers on these subjects in some 15,000 periodicals appear during the same period. He added, 'This constant accession of the world's stock of knowledge makes it practically impossible for scientific workers to keep themselves adequately informed regarding new work." A librarian seeking to make his library a comprehensive storehouse of scientific productions would need to add a mile and a half to his shelves every year; a condition of affairs that has been well described as a 'state of troublesome saturation.' Science, in short, may find itself stifled by its own output. Here then is the need for a plan that increases daily. The first desideratum is an agreed international classification of the sciences and of the subdivisions within each science. Consequent upon this is the problem of appropriate labeling. Indexing is full of pitfalls and yet it should not be beyond the wit of man to devise a suitable method for use internationally. The problem has two sides; the one facing the librarian as caterer and the other the reader as consumer. For the former it might be enough if each paper had its appropriate heading, the necessary references being tabulated in suitable bibliographies, though it has been suggested that for the purpose of collation a standardized form of production combined with a method of binding that allowed easy dissection might facilitate storage so as to render recent work more accessible to the reader. The method suggested may be ideal, but a moment's thought will reveal that it bristles with difficulties. Now to the student. Is it possible for science to take stock of her knowledge? Can she separate out precipitated findings from matters still in suspension? A tabulation and registering of all facts forming for each science a compendium of existing knowledge ought not to prove an insurmountable difficulty despite the enormity of the labor involved. True, a large staff of compilers and translators would be requisitioned, but the main compendium having been accomplished supplementary compendia in the form of year books and, perhaps, quinquennial surveys, would follow as a matter of course. The compiler would be helped by the distinctive heading. In addition, a special type might be utilized for indicating conclusions reached or, better still, authors might help by furnishing their own précis."

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MEETING OF THE ASSOCIATION OF LAND-GRANT COLLEGES AND UNIVERSITIES FROM THE VIEWPOINT OF A LIBRARIAN

By Cora L. Feldkamp, Librarian, Office of Experiment Stations,
U. S. Department of Agriculture

The Association of Land-Grant Colleges and Universities held its forty-fifth annual meeting in Chicago, November 16-18, 1931. It can be truthfully stated that there are few associations in existence that have watched and guarded so carefully the growth, development, and welfare of the institutions which they represent. To be convinced of this fact one need only peruse the Proceedings of the Association. In so doing one is aware that its members have not taken their responsibilities lightly. That the Association has been able to accomplish so much is no doubt due to the manner in which it is organized. There are numerous committees and their reports reveal that a thorough study has been made of the topics assigned to them. On the program of the last meeting there were listed no fewer than nine standing committees, three special committees, two joint committees of the Association and the United States Department of Agriculture, and five special research committees.

An outstanding study made at the request of the Association is the Survey of Land-Grant Colleges and Universities* the reports of which formed the basis of many of the papers given at the recent meeting.

It is impossible to give here an account of the meeting which would do it justice.** As at previous conventions, the outstanding topics discussed pertained to administration and teaching in the respective institutions, to research and graduate study, to extension work, and to home economics work.

Dr. George W. Rightmire, in his presidential address, gave a brief history of the Morrill Act, outlined the three stages of agricultural progress, and called attention to the needs of the present day. He stated that a proper appreciation of economics is essential, placed training for citizenship on the same plane of importance with production, and in closing urged that attention be given to the peace movement. Other speakers stressed the need for a knowledge of economic conditions and also the need for more effective teaching. Prof. A. W. Nolan, in a paper on "Types of Instructional Offerings and their Adaptability to the College of Agriculture" (after stating that many of the agricultural college graduates have gone into other lines of work) spoke of the newer methods of instruction given at the University of Wisconsin, the University of Chicago, Antioch College, Ohio State University, the Christian College (which considers life as the great objective), and Rollins College, which has adopted the conference method of instruction.

In view of the foregoing discussions it was rather significant that Mr. H. J. Baker, in his paper "Some Problems Facing the Future Development of the Extension Service", should consider that the college courses now given are too narrow to train the extension worker properly. He deemed it highly essential that the college should train men and women to think straight. He stated that in order to carry on extension work successfully, it is necessary for a staff to understand social and economic conditions and to have a proper appreciation of values. He feels that extension work is a direct service and constitutes so many miscellaneous tasks that little time is left for the educa-

*Survey of the land-grant colleges and universities. U. S. Dept. of Interior, Bur. Educ. Bul(1930) no 9, pt. 1 & 2.

** A full account of the meeting will be given in the editorials of the Experiment Station Record for Jan. & Feb. 1932, v. 66, no. 1 & 2.

tional program. He said, too, that the administration of extension work is often weakened because it is based on the expediency of the program. The extension program should include culture as well as agriculture.

At the second general session, the papers given dealt with the Survey of the Land-Grant Colleges and Universities. Two of the papers given should interest librarians: "Graduate Work", by Dr. Julius Klein, and "Libraries", by Dr. George W. Works. Doctor Klein, in commenting upon the research agencies necessary to do effective research, said it was found that the library conditions were startling. Before effective research work could be done it would be necessary to build up the libraries, especially regarding their sets of scientific periodicals. He suggested that colleges specialize in their graduate work, developing specific subjects. Doctor Works commended the analysis of library conditions made by Mr. C. H. Brown in the report on libraries. He told the executives of the land-grant colleges present that their obligations to Mr. Brown did not end with his analysis. Fortunately, permission was granted for the inclusion of Doctor Works' important paper in this issue of Agricultural Library Notes. It was hoped that the discussion also could be included but due to the fact that Doctor Works' paper was the last one on the program there was no discussion of it from the floor.

"The Policy of the Experiment Station Record", as presented by its editor, Mr. H. L. Knight, before the section meeting on the experiment station, created much discussion among the station directors. Mr. Knight briefly defined the scope of the Record calling attention to the fact that it is now in its forty-third year and sixty-fifth volume. He stated that the station funds available for research had increased from four to eighteen millions of dollars, but that there had been no perceptible expansion in the Record since 1911. Attention was called to the incompleteness of reviews, especially on textiles and home management. In 1928, in order to make more space available for abstracts, the table of contents and list of station and Department publications reviewed were omitted. To include more abstracts in the present issues Mr. Knight suggested the omission of the monthly editorials and notes, and the printing of the Record without leads. The station reports were also considered and it was suggested that the abstracts for these be shortened or dispensed with altogether if the results of the experiment therein reported is to be published later in a more complete form. The suggestion that the editorials and notes be excluded did not meet with the approval of the station directors present. As a result of the discussion, the section asked Mr. Knight to prepare a questionnaire, incorporating his suggestions, and to circularize it among the directors. In reply to a query regarding the distribution of the Record, Mr. Knight reported that at the present time no member below the rank of assistant professor received the Record free. The cumulative indexes, it was stated, are distributed only to libraries.

In the home economics section, it was evident that here also was a group concerned with the training of teachers and research workers. The plans for future research were ably presented by two papers: "Report of Purnell Projects", by Miss Sybil Smith, and "A Forward-Looking Program in Home Economics in Land Grant Colleges", by Dr. Agnes Fay Morgan.

The existing economic conditions, a subject of underlying interest to all sections of this Association, was stressed in a paper by Dr. C. B. Smith on "The Development of a Permanent Financial System for Extension Work" and in an

address by James C. Stone, who explained the functions and policies of the Federal Farm Board. At a breakfast meeting of home demonstration leaders, one heard of the splendid work done by the home demonstration agents in coping with decreased incomes and of their excellent work in helping to keep up the morale of the rural people. It was also stated by Dr. C.W. Warburton, Director of Extension Service, that recreation will undoubtedly occupy an important place in the extension program of the future.

In conclusion the question arises, What is the significance to Librarians of the discussions, addresses, and committee reports given at this meeting? If only some of the suggestions given and recommendations made are followed, it is safe to prophesy that the teacher, the research worker, the post-graduate student, and the extension worker will make increased use of the library.

Although present library conditions, according to Doctor Klein and Doctor Works, are in some respects rather disheartening and discouraging, there are also many reasons for encouragement. At any rate, the needs of the agricultural research and extension workers present a challenge to agricultural librarians.

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Argentine Republic - Relaciones exteriores y culto, Ministerio de - Biblioteca y archivo. Boletin internacional de bibliografia Argentina. Buenos Aires. mo. 4°, no. 1, Nov. 1930.

Der biologe: monatsschrift zur wahrung der belange der deutschen biologen. J.F. Lehmanns verlag, München. mo. 4°. v. 1, no. 1, Oct. 1931. Bezugspreis halbjährlich, RM 7.

Broom corn review. Wichita, Kan. Discontinued with v. 20, no. 45, Nov. 6, 1931. Absorbed by Broom and broom corn news.

The farmer-salesman. Chicago, Ill. Ceased with v. 2, no. 6, June, 1931.

Farmer's exchange. New Paris, Ind. With v. 6, no. 2, Nov. 6, 1931, combined with Elkhart county sentinel and continued as The farmer's exchange consolidated with the Elkhart county sentinel.

Food technology. 153 Stratford High Street, London, E. 15. f°. il. v. 1, no. 1, Sept. 1931. 15 shillings a year, including postage.

La France apicole. St. Germain d'Arcé, Sarthe. Discontinued with Aug. 1931.

Modern game breeding and hunting club news. J. A. Garby printing co., 28 W. State St., Doylestown, Pa. mo. 4°. il. v. 1, no. 1, July, 1931. $2.00 a year.

Sao Paulo, Brazil (State). Instituto de café. Boletim. Sao Paulo. Changed to Sao Paulo, Brazil (State). Instituto de café. Revista, with no. 61, Oct. 1931.

BIOGRAPHICAL SKETCHES OF AGRICULTURAL SCIENTISTS

A series of biographical sketches of eminent agricultural scientists is appearing in Better Crops with Plant Food under the title "The Inquiring Mind and the Seeing Eye". Beginning with the May, 1930, number, sketches of the following agriculturists have appeared:

1930	May	Thomas Edward, 1814-
	June	Stephen Moulton Babcock, 1843-[1931]
	July	Edwin Rowland Boardman, 1829-1891
	Aug.	Elmer Verner McCollum, 1879-
	Sept.	Patrick Bell
	Oct.	John Francis Appleby, 1840-
	Nov.	Charles Sumner Plumb, 1860-
	Dec.	John R. Mohler, 1875-
1931	Jan.	Herbert Winslow Collingswood, 1857-1927
	Feb.	Dillman Samuel Bullock, 1878-
	Mar.	John Howard Hale, 1853-1917
	Apr.	Lewis Ralph Jones, 1864-
	May	Louis Hermann Pammel, 1862-1931
	June	William Carroll Latta, 1850-
	June	James Troop, 1853-
	July	Charles Embree Thorne, 1846-
	Aug.	Lucius Lincoln Van Slyke, 1859-
	Sept.	William Frear, 1860-
	Oct.-Nov.	Eugene Woldemar Hilgard, 1833-[1916]

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GRADUATE LIBRARY SCHOOL FELLOWSHIPS
University of Chicago

The University of Chicago will offer three fellowships of $1,500 each for the academic year 1932-33 in its Graduate Library School, The fellowships are awarded by the President on the recommendation of the Committee on Fellowships and Scholarships. Applications must be in the hands of the Committee on or before March 1, 1932. The following attainments are required:

(a) The possession of a Bachelor's degree equivalent, or approximately equivalent, to that conferred by leading colleges and universities.

(b) Completion of at least one year in an accredited library school, or the equivalent in experience.

(c) At least one year of library experience under approved conditions.

In addition to the requirements given above special consideration will be given to publications and manuscripts showing ability on the part of candidates to conduct original studies.

Forms to be used in making application for admission, and for fellowships, may be obtained by writing the Graduate Library School, The University of Chicago.

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BIBLIOGRAPHIES

Farm and village home landscaping. A selected bibliography. Compiled by Josiah C. Folsom, Committee on Farm and Village Housing, President's Conference on Home Building and Home Ownership. 17 p. Washington, D.C., Dec. 1931.

Bibliography of fruit and produce auctions. Selected references. Compiled in the Library, Bureau of Agricultural Economics, U.S. Department of Agriculture. 8 p. Sept. 1931. Typewritten. May be borrowed for copying. Supersedes lists of similar title dated Apr. 10, 1924 and May 13, 1925.

Business and banking periodicals reviewing the business situation. A selected list compiled from the periodicals received in the libraries of the U.S. Dept. of Agriculture and the Federal Farm Board. Compiled by Mamie I. Herb, under the direction of Mary G. Lacy, Librarian, Bureau of Agricultural Economics, U.S. Department of Agriculture. 21 p. Aug. 1931.(Agricultural Economics Bibliography no. 34)

Bibliography of research studies in education, 1929-1930. Prepared in the Library Division, Office of Education, by Edith A. Wright. 1931. (U.S. Department of the Interior, Office of Education, Bulletin, 1931, no. 13)

The fourth annual compilation of research studies in education, comprising masters' and doctors' theses and other investigations completed from July, 1929 to September, 1930. In this volume a slight change was found necessary regarding the period covered. All studies completed up to the beginning of the school year 1930-31 have been included. In future issues it is planned to cover the school year rather than the year beginning in July and ending the following June. The data contained in the bibliography were received in response to letters sent out in May and October, 1930, to all agencies known to the Office of Education to be engaged in educational research. Universities and colleges, city and state research bureaus, and other research agencies were included. In addition, about 25 educational magazines for the period covered were examined and studies selected for listing. The studies covered include rural education, agricurtural education, and home economics.

Lactobacilus acidophilus. An annotated bibliography to 1931. By W. D. Frost, Professor of Agricultural Bacteriology, and Hazel Hankinson, Industrial Fellow, Department of Agricultural Bacteriology, University of Wisconsin. 160 p. Published by Davis-Green Corp., Milton, Wisconsin.

In their foreword, the authors state that in preparing this bibliography it seemed desirable to search out the literature as a whole and to present the abstracts in a form in which they would be most likely to inspire confidence; that presenting an abstract of an article in the words of the author's own conclusion is as fair a way as any, and that this plan has therefore been followed whereever possible. The volume is in two parts - Books on the subject of lactobacillus acidophilus, and Abstracts of periodical literature, with references. There is an alphabetical list of authors, a chronological list of references, and a subject index.

BIBLIOGRAPHIES
(cont'd)

The root-infesting eelworms of the genus Heterodera. A bibliography and host list. Issued by the Imperial Bureau of Agricultural Parasitology, Winches Farm, Hatfield Road, St. Albans, England. 91 p. July, 1931. Price 6/-.

The soybean industry in the United States: a selected list of references on the economic aspects of the industry, 1920-1931. Comp. by Mamie I. Herb, Library, Bureau of Agricultural Economics, U.S. Department of Agriculture. 19 p. Nov. 6, 1931. Typewritten. May be borrowed for copying.

The influence of weather on crops: 1900-1930. A selected and annotated bibliography. Compiled by A.M. Hannay, Bibliographical Assistant, under the direction of Mary G. Lacy, Librarian, Bureau of Agricultural Economics, U.S. Department of Agriculture. 246 p. October, 1931. (U.S. Dept. of Agric. Misc. Pub. 118)

CONGRESSES

Conference on Economic Policy for American Agriculture, University of Chicago, September 7-9, 1931. Report of proceedings. 261 p. Chicago, Univ. of Chicago, 1931. Mimeographed.

Report and Proceedings of Conference of Colonial Directors of Agriculture Held at the Colonial Office, July, 1931. 81 p. London, H.M. Stationery Office, 1931.

Report of Conference on Development of Agricultural Cooperative Business, Friday, October 16th, 1931. Published by Welsh Agricultural Organisation Society Ltd., Aberystwyth, and Department of Agricultural Economics, University College, Aberystwyth, 1931.

Congresos Internacionales de Agricultura Tropical y Subtropical y del Café. Celebrados en Sevilla del 26 de Septiembre al 2 de Octubre de 1929. Tomo Primero. 341 p. Madrid, Talleres Tipograficos de Cleto Vallinas, 1930.

The Sixth International Congress of Genetics is to be held at Ithaca, N. Y., August 24-31, 1932.

The Ninth International Congress of Pure and Applied Chemistry will be held in Madrid, Spain, April 3-10, 1932.

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Massachusetts

Massachusetts Horticultural Society:

The following communication has been received from Miss Dorothy S. Manks, Librarian,

"Until recently it has been our custom to restrict the use of our bound periodicals to our own reading room, but now we are getting a steadily increasing number of requests for loans. Since this problem has been created, I feel sure, by our inclusion in the Union List of Serials, I have no doubt that other libraries are faced with it, too. How are they meeting it? Many of the prospective borrowers, other libraries and our own members alike, are outside Boston, and their material must be sent to them by mail or express. This, however, is not a drawback, for we have sent nearly nine hundred packages in the past eleven months with the loss of only one. The elements of risk lie, I think, more in the accidents of use and in the physical condition of the volumes themselves - the tendency to large and bulky form and less flexible binding. Then, too, our sets are unusually complete, and consequently of great value. We are torn between our wish to cooperate and our responsibility for the preservation of our files."

New Hampshire

University of New Hampshire:

On December 9 Mr. William W. Shirley, Librarian of the University of New Hampshire, gave a radio talk on "Books for Long Winter Evenings". The books suggested by Mr. Shirley were: This Believing World, by Lewis Browne; The Story of Philosophy, by Will Durant; The Rise of American Civilization, by Charles and Mary Beard; The Winged Horse, Anthology, by Auslander and Hill; Hamlet, by Shakespeare; The Story of San Michele, by Axel Munthe; The Bridge of San Luis Rey, by Thornton Wilder; Death Comes for the Archbishop, by Willa Cather; Maria Chapdelaine, by Louis Hemon.

Mr. Shirley was elected President of the New Hampshire Library Association last September.

New York

Boyce Thompson Institute for Plant Research:

In the last issue of Agricultural Library Notes there was included an article on the Institute by the Librarian, Miss Zeliaette Troy. In connection with the new quarters of the library, the following statistics were compiled by the Librarian which were not included in the article:

Floor space - 9729 square feet

Estimated capacity:	
Books	103,178
Pamphlets	57,446
Resources, May 1, 1931:	
Number of bound texts	3,612
Number of bound periodicals	6,368
Number of bound documents	1,862
Total number of bound volumes	10,842
Number of catalogued pamphlets	4,441
Number of periodicals currently received	421
Estimated number of documents currently rec'd	500

North Carolina

North Carolina State College of Agriculture:

In an article in the Saturday Evening Post for Jan. 2, 1932, entitled "One State Cleans House", by O. Max Gardner, Governor of North Carolina, he refers as follows to recent legislation affecting the educational institutions of the state. "The act of the General Assembly which will have the deepest and the most enduring effect on the future of this commonwealth was the consolidation and merger of the three major state educational institutions into a greater University of North Carolina. The General Assembly passed, with only three dissenting votes, the administration bill to consolidate the University of North Carolina, located at Chapel Hill, the North Carolina State College of Agriculture and Engineering, at Raleigh, and the North Carolina College for Women at Greensboro. Their combined enrollment is more than 6000 students...The act then provided that the governor should appoint a commission of twelve members to cooperate with himself in working out a plan for the educational program for the enlarged institution... It directed the commission to employ competent experts who should make for the commission a thoroughgoing survey of the institutions, and lay before it the best possible plan or plans for making the unification effective. This commission and survey staff, headed by Dr. George A. Works, of the University of Chicago, are now at work."

Washington

Washington State College:

The following item has been supplied by Mr. W.W. Foote, Librarian of the State College of Washington:

"During the past academic year ending in June, some notable changes were made in the library. The sixth level steel stack was installed and immediately filled with books that had previously been piled on the floor of the other stack levels. This relieved the congested condition of the library somewhat, but it was found necessary during the summer to lay a cement floor in the basement of the new Home Economics building, making a large, commodious store room for surplus library material. More than fifty tons of books, bulletins and newspapers from the main library have been stored in these new quarters until proper shelving can be erected. The library has grown enormously in recent years as a result of constant solicitation for gifts from all over the world and now has an unusual collection for a university of this size. There are more than 208,000 bound volumes on its shelves, with more than 1,000,000 unbound pieces in the form of magazines, bulletins, maps and charts. Special effort has been made at this time, when a shortage of funds prevent book purchase, to secure as much valuable material as possible by gift and exchange. An enormous volume of gifts are received annually from app parts of the world. A grand total of 151,163 pieces were received during the past year in the form of books, pamphlets and periodicals, and of this total 122,520 were received by gift and exchange. A large portion of this gift material consists of state, federal and municipal documents, as well as very valuable scientific publications published by many of the leading universities of the world. This material is used in reference work in the various departments, and is indispensable in the work of a large university."

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THESES

The Oregon State College Library has issued a list of the theses submitted for the Master's Degree, through 1931. Beginning with the theses of 1924, the Library has an extra copy for lending to other libraries. Following is a selected list of the theses submitted in 1931:

Bentley, Evalyn Annetta. A study of incomes and expenditures of home economics graduates of Oregon State College. 50 p.

Brooke, Ralph Edward. Sterility in dairy cattle. 80 p.

Callaway, Edward Cleveland. The tetra-alkyl ammonium compounds, their possible use in agriculture and industry. 37 p.

Cole, Arthur William. Studies on the growth of bacteria, yeasts and molds in butter held in storage at 4.3° to 10° (40° to 50°F) for one month. 73 p.

Dimick, Roland Eugene. Digonichaeta setipennis Fall. A Tachinid parasite of the European earwig, with a study of its introduction, biology and laboratory methods used in rearing in Oregon. 118 p.

Ding, Mae Land. Curricula in home economics for Hwa Nan College, China, 1931. 68 p.

Douglass, Ruth. A study of the vitamin G. content or Oregon Bosc pears. 60 p.

Dowd, Oscar Jefferson. Investigations in the relative transpiration rate and foliar water retaining power of various apple varieties. 83 p.

Edwards, Floyd Marvin. Fattening lambs at the Union and Hermiston branch experiment stations in Oregon, 1922-1927. 49 p.

Fogarty, Earl Rosendale. Available phosphate tests on certain Oregon soil types. 35 p.

Holloway, Mae Lujeanne. A study of the vitamin B (B_1) content of Oregon Bosc pears.

Johnson, Philip Cornwell. The American species of the genus Ellopia (Lepidoptera) with special reference to Ellopia sommiaria Hulst. 55 p.

Johnson, Raymond Hawley. The absorption of water by cements. 47 p.

Kearns, Richard S. The relation of air circulation to kiln drying of lumber. 65 p.

Kelleway, Helen Lee. Honey and its use in cookery. 72 p.

Kerley, Vernon Emmet. Standardization of phototube tests and rations. 83 p.

McDaniel, Vern E. Nursery practice on the Oregon forest nursery. 53 p.

Miller, Vondis Elbert. A management plan for the Peavyarboretum and school forest. 32 p.

Parker, Ralph Walton. A survey of certain industrial and agricultural activities of the state of Oregon with particular reference to the possible influence on the practical arts program of Oregon public schools.

Rygg, George Leonard. Effects of runner production on strawberry plants. 56 p.

Smithers, Paul Louis. History and analysis of the Pacific cooperative poultry producers. 98 p.

Stebbings, Lee Willoughby. The valuation and depreciation of public utilities operating in rural communities. 369 p.

Thielke, William Carey. The possibility of inter-transmission of tulip mosaic and iris mosaic by insect vectors, especially aphids. 36 p.

Wilson, Francis Dale. Raising calves on dry calf meal. 85 p.

At the Mississippi Agricultural and Mechanical College, the following theses have been submitted for the degree of Master of Science.

Bailey, Earl. Development of the embryo sac of the seed in Linaria Canadensis.
Byrd, Elon. Some amphibians and reptiles of Mississippi.
Haug, Gordon W. Effect of Argentine Ant poison on the native ant fauna of Mississippi.
Hutchins, Ross E. The comparative attractiveness to certain noctuid moths of red, purple and white lights.
Lochridge, A. L. The use of purebred sire in building a dairy herd.
Lyle, Clay. Tests of poisons for Argentine Ant.
Polk, H. D. Comparison of the tube, rapid serum and whole blood agglutination tests for the detection of carriers of Bacterium Pullorum.

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INTERNATIONAL INSTITUTE OF AGRICULTURE PUBLICATIONS

A history of the publications of the International Institute of Agriculture through the beginning of the year 1927 was contained in Agricultural Library Notes for March, 1927. The following information concerning the Institute's publications since that date may be of interest.

The International Review of Agriculture continued through 1927 and 1928 (Year 18 and 19, new series) with the double pagination and portions of the Review issued as separates as described in the article in Agricultural Library Notes referred to above. In 1929-1930 (Year 20 and 21, new series), it was published in three parts as follows, each part carrying the volume number (20 and 21) of the Review:

Part 1. Monthly bulletin of agricultural science and practice.
Part 2. Monthly bulletin of agricultural economics and sociology.
Part 3. Monthly crop report and agricultural statistics.

The International Bulletin of Plant Protection was published separately for 1929 and 1930 and called Years 3 and 4, respectively.

In 1931 (Year 22) the International Review of Agriculture was published as one number, incorporating the four parts, which were also published separately as reprints, bearing the reprint note. The reprint of the International Bulletin of Plant Protection is called Year 5 (1931). The reprints of the three other parts carry the volume number 22 of the International Review of Agriculture.

The reprint of the International Bulletin of Plant Protection is not available for distribution from Washington. The three other reprints are distributed by the Division of Economic Information, Bureau of Agricultural Economics, U.S. Department of Agriculture, Washington, D.C.

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MISCELLANY

In the Experiment Station Record for December, 1931, vol. 65, no. 8, there is an editorial on the Report on the Agricultural Experiment Stations, 1930, just issued by the Office of Experiment Stations. In speaking of the progress made by the stations, as shown by the report, the statement is made that the showing is still disappointing in one respect - that of the library allotment. "Although the library allotment is nearly double the $35,379 expended in 1925, it represented only 0.36 per cent of the funds available for station support. This provision is regarded as inadequate, and the report of the survey of land-grant colleges and universities is cited in support of this contention. It is maintained that 'the field of scientific research and the volume of scientific literature have grown so large and are increasing so rapidly that despite the existence of many helpful abstract journals and other bibliographical aids an individual investigator can hardly hope to keep fully informed as to the progress of science even in a limited field without competent library and bibliographical assistance.' The suggestion is advanced that the 'inadequate library service may be due in part to failure of the investigator as well as the administrator to appreciate fully the research value of such service.'"

At the annual meeting of the American Ornithologists' Union held recently in Detroit, the Brewster Medal was awarded to Mrs. Florence Merriam Bailey, for her book "Birds of New Mexico", a cooperative publication issued in 1928 by the New Mexico State Department of Game and Fish, the New Mexico Game Protective Association, and the Bureau of Biological Survey of the U. S. Department of Agriculture. The medal, together with the proceeds of a fund of $7,250 established in 1919 by friends of the ornithologist, William Brewster, is awarded biennially to the author of "the most important work relating to the birds of the Western Hemisphere published during the preceding six years". Mr. Bailey, who is the wife of Vernon Bailey, senior biologist and field naturalist of the Bureau of Biological Survey, is the first woman to receive the Brewster award. She is the author of a number of other books on birds. The work on the "Birds of New Mexico" is based mainly upon field work of the bureau. It was begun by the late Wells W. Cooke, assistant biologist of the bureau and after his death was completed by Mrs. Bailey.

"Farm Life: Problems and Opportunities", by Clarence Poe, has recently been issued by the American Library Association, as no. 62 in its "Reading with a Purpose" series. Mr. Poe has been president and editor of The Progressive Farmer since 1903, and has been a crusader for better farming and cooperative marketing all over the south. The pamphlet contains 36 pages. The books included in the list are the following: Rural Life at the Cross Roads, by Macy Campbell: The Place of Agriculture in American Life, by Wilson Gee; First Annual Report, U. S. Federal Farm Board; Land Utilization and the Farm Problem, by L. C. Gray and O. E. Baker; Adventures in Contentment, by Ray Stannard Baker; the Woman on the Farm, by Mary Meek Atkeson; These Changing Times, by Edward R. Eastman; The Harvest of the Year to the Tiller of the Soil, by Liberty Hyde Bailey.

"Nature" for November 14, 1931, contains an article, on page 833, on the dissemination of scientific information in Germany. The article makes specific mention of the scientific news service "Pallas", edited by Dr. Paul Neuburger, Berlin-Zehlendorf, Cecilienstr. 10, which distributes a foolscap sheet appearing about every other day; the Reichszentrale für wissenschaftliche Berichterstattung Pressestelle, Berlin, N. W. 7, Unter der Linden, 38, another information bureau issuing scientific news; and Die Naturwissenschaften, edited by Dr. Arnold Berliner and published by Verlag Julius Springer, Berlin, W. 9, Linkstrasse 23-24, a weekly journal of science.

The Bureau of Standards of the U. S. Department of Commerce has recently issued as its Miscellaneous Publication No. 128, "A survey of storage conditions in libraries relative to the preservation of records", by Arthur E. Kimberly and J. F. G. Hicks, Jr. The survey was undertaken in order to determine the extent to which conditions of storage may be responsible for the deterioration of records and other material stored in libraries. The inspection stressed particularly conditions within the book stacks relative to the control of temperature, humidity, and air pollution, as well as the exclusion of light. It is interesting to note that the recommended storage conditions are those in which daylight and polluted air are excluded and the temperature and humidity maintained at 65° to 75°, and 45 to 55 per cent, respectively.

A new citrus laboratory of the Bureau of Chemistry and Soils of the U. S. Department of Agriculture, for which funds were appropriated by the last Congress, is to be established in the citrus-growing territory of the Rio Grande Valley at Weslaco, Texas, on the state-owned land of the Texas State Experiment Station, for the study of citrus fruit culls and their by-products. Work will begin on problems of citrus-fruit utilization as soon as the buildings are completed and the equipment is installed.

An editorial in a recent number of the Pennsylvania Farmer says: "The effects of business depression are not all bad. For instance note the growing interest in economy in public and private affairs, the increasing attention to elimination of waste and extravagance. A great library, perhaps the greatest in the country, reports that since the advent of the current depression its circulation of books has increased over 30 per cent. And the increase in solid reading, or other than fiction, has been more than the average. All this means that more of our people are doing serious reading and studying, which will be good for them and for the country."

Mrs. Lois B. Payson has recently been appointed to a position in the Library of the U. S. Department of Agriculture. Mrs. Payson was formerly an assistant in the Montana State College. During the past year she took the graduate library course at the Columbia University School of Library Service.

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Breeds of Live Stock in America. By Henry W. Vaughan, formerly Professor of Animal Husbandry, Iowa State College, University of Minnesota, and Montana State College; Assistant Professor, Ohio State College. 780 p. il. Columbus, O., R. G. Adams & Company, 1931.

Practical Poultry Farming. By L. M. Hurd, Extension Instructor in Poultry Husbandry, New York State College of Agriculture, Cornell University. New and rev. ed. 454 p. il. New York, The Macmillan Company, 1931. (Rural science series)

In this edition the material is brought up to date and contains all the important discoveries in poultry raising made in the three years since the book's first publication.

Judging Poultry. By Harry M. Lamon, President, and Jos. Wm. Kinghorne, Secretary-Treasurer, National Poultry Institute, Washington, D. C. Rev. ed. 113 p. Washington, D. C., The authors (1426 You St., N.W.), 1931.

Practical Sheep Husbandry. A comprehensive treatise of practical methods for producing, feeding and fattening sheep and lambs for market. By Wm. A. Burns. [2d rev. ed.] 96 p. il. Chicago, The author, Exchange Bldg., U.S.Yards, 1931.

Market Milk. By Ernest Kelly, Chief, Division of Market Milk Investigations, and Clarence E. Clement, Division of Market Milk Investigations. Bureau of Dairy Industry, U. S. Department of Agriculture. 2d rev. ed. 489 p. il. New York, John Wiley & Sons, 1931.

This revised edition has been prepared in order to bring the book as nearly up to date as possible. Minor changes have been made throughout and much new material has been added.

Animal Ecology, with Especial Reference to Insects. By Royal N. Chapman, Dean of the Graduate School of Tropical Agriculture and Director of the Pineapple Experiment Station, University of Hawaii. 464 p. New York, McGraw-Hill Book Co., 1931. (McGraw-Hill publications in the zoological sciences)

"Brings together in a formal and logical statement the various and diverse materials embraced by the subject of ecology. The viewpoint is quantitative and experimental; the object is not only to call attention to what has been done in the past, but to point out the field in which there is a reasonable prospect of advance in the future. The important literature in various phases of the subject is critically reviewed." (Publishers)

Animal Biology. By Robert H. Wolcott. 261 p. Ann Arbor, Mich., Edwards Bros., 1931.

A general treatise on the subject. A history of zoology is given on pages 260-261.

Nursery Sales and Management. A discussion of first principles governing the successful establishment of a nursery. By Nelson Coon. 234 p. il. New York, A. T. De La Mare Co., 1931.

In his preface the author states that he has tried to present the matter in this book in the manner of a textbook and that it might be called "An introduction to the study of norsery practice" as throughout the chapters reference has been made to books dealing with the subject.

Plant Propagation and Orcharding. By G. W. Adriance and F. R. Brison, Department of Horticulture, A. and M. College of Texas. 69 p. il. Ann Arbor, Mich., Edwards Bros., 1931.

A general treatise suitable for beginners.

Southern Horticulture Enterprises. By Edward Walter Garris, Professor of Agricultural Education, University of Florida, and George Peter Hoffman, Horticulturist for Penney-Gwinn Corporation Farms, formerly Associate Professor of Horticulture, Clemson College. 551 p. il. Philadelphia, J. B. Lippincott Company, 1931.

"A special book on horticultural crops is needed for the southern region because climate and soil both have much effect upon these crops. In selecting the enterprises for this text careful consideration has been given to those which have shown good financial returns in the South and which offer promise to growers... The job-analysis plan of treatment has been followed." (Preface)

The Common Names of Plants and Their Meanings. By Willard N. Clute, Director of the Botanical Garden of Butler University. 160 p. Indianapolis, Ind., Willard N. Clute & Co., 1931.

The author states that in this volume he has "attempted to unravel a few of the terms that have been applied to the common plants of our fields and woods. To explain them all would require a book of more than ordinary size and necessitate the work of many years to complete. This may be realized when it is known that there are more than fifteen thousand names of this kind in the eastern half of the United States."

Trees in Winter. Their study and identification. By Albert Francis Blakeslee and Chester Deacon Jarvis. Abridged edition. 292 p. il. New York, The Macmillan Company, 1931.

This work is abridged from the larger book of the same title (published in 1913), to include only the material on tree study and identification.

Gardens of Colony and State. Gardens and gardeners of the American Colonies and of the Republic before 1840 - Massachusetts, Connecticut, Maine, New Hampshire, Vermont, Rhode Island, New York, New Jersey, Pennsylvania, Michigan, Ohio, Illinois. Compiled and edited for the Garden Club of America by Alice G. B. Lockwood, Chairman, Special Publications Committee. 484 p. il. New York, Published for the Garden Club of America by Charles Scribner's Sons, 1931.

Insects and Their Control. By Andrew Wilson, Member of the American Chemical Society. 2d rev. ed. 383 p. il. Plainfield, N.J.; Interstate Printing Corporation, 1931.

"Prepared with the purpose of presenting to the home owner a concise account of the more common insects likely to infest his garden, flowers, ornamental plants, shrubs and trees". Advertises the products of Andrew Wilson, Inc., wherever they can be used in the control of insects.

Insect Pests of Farm, Garden and Orchard. By E. Dwight Sanderson, Professor of Rural Social Organization, Cornell University. 3d ed. rev. and enl. by Leonard Marion Peairs, Professor of Entomology, West Virginia University. 568 p. il. New York, John Wiley & Sons, 1931.

"Although a few of the original articles of the first edition by Mr. Sanderson remain more or less intact, this third edition has been almost entirely rewritten by Mr. Peairs, much new material has been added, and many new illustrations are included." (Preface)

Wiley's Principles and Practice of Agricultural Analysis. A manual for students, teachers, analysts and investigators. Vol. II. Fertilizers and Insecticides. 3d ed. prepared and issued under the direction of the Association of Official Agricultural Chemists. Dr. Charles A. Browne, Assistant Chief, Bureau of Chemistry and Soils, and Dr. William W. Skinner, Assistant Chief, Chemical and Technological Research, Bureau of Chemistry and Soils, U. S. Department of Agriculture, Editors. 545 p. Easton, Pa., Chemical Pub. Co., 1931.

"The present edition is not a revision in the sense that it is a rewritten and enlarged former edition; the subject matter, the arrangement, and the method of presentation are new." (Preface)

A History of Chemistry. By F. J. Moore, late Professor of Chemistry in the Massachusetts Institute of Technology. Revision prepared by William T. Hall, Associate Professor of Analytical Chemistry in the Massachusetts Institute of Technology. 2d ed. 324 p. il. New York, McGraw-Hill Book Co., 1931. (International chemical series)

"A treatment of the historical development of the important theories of chemistry. It covers the origin of the fundamental ideas of the science, their philosophical basis, the critical periods in their development, and the personalities of the great men whose efforts have contributed to that development." The revision incorporates recently discovered data and additional facts of interest.

Science in Action. A sketch of the value of scientific research in American industries. By Edward R. Weidlein and William A. Hamor, Mellon Institute of Industrial Research. 310 p. il. New York, McGraw-Hill Book Company, 1931.

"Sets forth...the methods and accomplishments of industrial research, that is, scientific investigation as applied to the production and merchandising problems of various branches of manufacture and to the promotion of human welfare, especially in the United States." (Preface)

Nutrition and Physical Fitness. By Jean Bogert, formerly Instructor in Medicine, University of Chicago. 544 p. Philadelphia, W. B. Saunders Company, 1931.

In simple language, the author "makes understandable to all students even to those with no previous knowledge of chemistry - the nutritive requirements and processes of the body, why certain dietary precautions are necessary, when and how the diet should be modified to meet varying conditions."

The Vitamins. By Ethel Browning, Assistant Pathologist to the Pickett-Thomson Research Laboratory, St. Paul's Hospital, London. 575 p. London, Baillière, Tindall & Cox; Baltimore, Williams & Wilkins, 1931. (Monographs of the Pickett-Thomson Research Laboratory, Vol. I, Sept. 1931)

The Annals of the Pickett-Thomson Research Laboratory thus far published have dealt only with bacteriology. This work on the vitamins forms the beginning of a new series of volumes which will be entitled the "Monographs of the Pickett-Thomson Research Laboratory."

References to literature: pp. 432-523.

The Family's Food. By Faith R. Lanham, Director of the School of Home Economics, Ohio State University; Hughina McKay, Professor of Home Economics, Ohio State University; Frances Zuill, Head of the Department of Home Economics, State University of Iowa. 422 p. il. Philadelphia, J. B. Lippincott Company, 1931. (Lippincott's Home Economics Texts)

"Deals with the food problems of the family from the modern viewpoint, drawing upon the accumulated data of the last two decades of extremely active food research for all that they may contribute to the solution of these problems. The authors approach the matter with a wide experience in the teaching of the subject in public schools, in college, and in the extension field. They have been students of the method of presentation as well as of subject matter. This text should prove to be of value in a number of connections, because, while it is thoroughly scientific in its treatment of the subject, it at the same time presents the material from the standpoint of sound practice."(Foreword)

American Standards and Planes of Living. Readings in the Social Economics of Consumption. Edited by Thomas D. Eliot, Professor of Sociology, Northwestern University. 931 p. Boston, Ginn & Company, 1931.

"The selection of teaching materials here offered has been compiled with the needs of home economists and social workers in mind, as well as those of classes in general social economy, applied sociology, labor problems, and the economics of consumption. The readings should prove useful as a text or as a companion for other texts on standards of living or the economics of consumption, since much illustrative material has been included for which the ordinary text has no space." (Preface)

The Outdoor Living Room. By Leonidas W. Ramsey and Charles H. Lawrence. 126 p. il. New York, The Macmillan Company, 1932.

Textiles and Clothing. By Ellen Beers McGowan, School of Practical Arts, Teachers College, Columbia University, and Charlotte A. Waite, Head of Department of Domestic Art, Julia Richman High School, New York City. Rev. ed. 344 p. il. New York, The Macmillan Company, 1931.

Revised to meet new conditions and needs. Although designed principally to meet the needs of high school students and through them, of home makers, it may be of service to teachers looking for reference material or suggestions for the project study of textiles.

Survey of Textile Research in the United States, 1931. Conducted for The Textile Foundation, Washington, D. C., by the United States Institute for Textile Research, Inc. 116 p. Boston (65 Franklin St.), 1931. Mimeographed.

The Better Homes Manual. Published in cooperation with Better Homes in America. Edited by Blanche Halbert, Research Director, Better Homes in America. 781 p. il. (The Univ. of Chicago Home Economics Series)

Authoritative articles from leading housing specialists in the United States regarding financing, planning, building, finishing and furnishing a home.

Village and Open-Country Neighborhoods. By Walter A. Terpenning, Professor of Sociology, Western State Teachers' College, Kalamazoo, Michigan. With an introduction by the Right Honorable Sir Horace Plunkett. 493 p. New York, The Century Co., 1931. (The Century Social Sciences Series)

"A penetrating comparative study of the American open-neighborhood form of rural organization and that much older system of the village which prevails generally throughout Europe. For the purpose of gathering first-hand information, the author lived as a resident in various neighborhoods of the United States, England, France, Italy, Ireland, Denmark, and Russia, and made formal surveys while sharing in the social life and participating in the home and neighborhood activities." (Publishers)

Federal Relations to Education. Report of the National Advisory Committee on Education. Washington, D. C. (744 Jackson Place), National Advisory Committee on Education, 1931.

This committee, acting at the request and under the appointment of the president, has analysed the activities of the Federal Government in the field of education, inquired into the public policies involved, studied their operation, and investigated their effects. The report is in two parts - Part I. Committee findings and recommendations; Part II. Basic facts.

Practical Methods in Teaching Vocational Agriculture. By H. E. Lattig, Professor and Head of Department of Agricultural Education, University of Idaho, Moscow, Idaho. 360 p. il. New York, McGraw-Hill Book Co., 1931. (McGraw-Hill vocational texts)

The Geography of the Mediterranean Region. Its relation to ancient history. By Ellen Churchill Semple, Professor of Anthropogeography, Clark University. 737 p. New York, Henry Holt & Company, 1931.

Part III relates to Vegetation and Agriculture.

FOREIGN BOOKS

The Economic History of England, 1760-1860. By Arthur Redford, Reader in Economic History in the University of Manchester. 221 p. London, Longmans, Green & Co., 1931.

"The period 1760-1860 covers those great changes in economic life which are familiarly called The Industrial and The Agricultural Revolutions. This book tells the story of those changes, and of the effects of the Napoleonic war on the life of the nation, in the light of recent research." (Publishers)

References: pp. 209-215.

The Indian Peasant Uprooted. A study of the human machine. By Margaret Read. With a foreword by the Right Hon. J. H. Whitley, Chairman of the Royal Commission on Labour in India. 256 p. London, Longmans Green & Co., 1931.

In this volume the author has taken the Report of the Royal Commission on Labour in India and retranslated it into terms of individual lives. "In the modern social-economics world industrial commissions and surveys are like a seismograph and their findings record the changes that are taking place. These are seen most clearly in the former agricultural countries where modern industry is changing the face of the earth by creating industrial cities and up-to-date mining plants. Yet beneath the visible changes seen in factories and steel rolling mills and city slums are unseen forces affecting the lives of the human beings involved in these upheavals. These human beings are for the most part peasants who are uprooted from their fields to work in the mills and mines." (Preface)

An Agricultural Atlas of Scotland. By Herbert John Wood, Assistant Lecturer in Geography, University of London, King's College. 64 p. London, George Gill & Sons, 1931.

A New Policy for Agriculture. By F. N. Blundell. With an introduction by the Rt. Hon. Neville Chamberlain. 180 p. London, Philip Allan & Co., Ltd., 1931.

"Sets out the principal problems before British agriculture to-day, and the objects to be aimed at in trying to set it on its feet again."

Agricultural Cooperation in Ireland. A survey by the Horace Plunkett Foundation. 424 p. London, George Routledge & Sons, Ltd., 1931.

One of a number of similar surveys made by the Horace Plunkett Foundation. Scotland and Wales remain to complete the investigation originally planned for the British Isles.

A Survey of Rural Life in Cyprus. Based on reports of investigators who visited villages throughout the Colony during 1927 and 1928, and amplified by statistical and other information from the records of Government. Prepared by B. J. Surridge, Commissioner of Larnaca, with a preface by Sir Ronald Storrs, Governor of Cyprus. 91 p. Nicosia, Cyprus, Govt. Ptg. Office, 1930.

The Waste Products of Agriculture. Their utilization as humus. By Albert Howard, Director of the Institute of Plant Industry, Indore, and Agricultural Adviser to States in Central India and Rajputana, and Yeshwant D. Wad, Chief Assistant in Chemistry, Institute of Plant Industry, Indore. 167 p. il. London, Humphrey Milford, 1931.

The Indore process for the manufacture of humus is described in detail in this book. "It can be adopted as it stands throughout the tropics and sub-tropics, and also on the small holdings and allotments of the temperate zone. How rapidly the method can be incorporated into the large-scale agriculture of the west is a question which experience alone can answer. It will in all probability depend on how far the process can be mechanized. In the field of rural hygiene there is great scope for the new method. It can be applied to the utilization of all human, animal and vegetable wastes in such a manner that the breeding of flies is prevented, the water and the food-supply of the people safeguarded, and the general health of the locality improved. Cleaner and healthier villages will then go hand in hand with heavier crops." (Preface)

The Gardener's Chapbook. Edited by E. H. M. Cox. 257 p. il. London, Chatto & Windus, 1931.

Contents: Anthology; Herbs and Simples; Forgotten Plants; Perfumes and Pot Pourri; The Uses of Fruit; Vegetables and Salads; Garden Proverbs; English and Latin Names; A Calendar.

A Modern Herbal. The medicinal, culinary, cosmetic and economic properties, cultivation and folklore of herbs, grasses, fungi, shrubs and trees with all their modern scientific uses. By Mrs. M. Grieve, with an introduction by the editor, Mrs. C. F. Leyel. 2 v.il. London, Jonathan Cape, 1931.

"This herbal, medicinal, culinary and cosmetic, the first comprehensive medical herbal to be published since the days of Culpeper, unites modern scientific accuracy with the legendary and traditional lore which adds so much charm to the herbals of Gerrard and Parkinson. Complete descriptions of over one thousand plants are given, with numerous illustrations and hundreds of recipes." (Publishers)

International Address Book of Botanists. Being a directory of individuals and scientific institutions, universities, societies, etc., in all parts of the world interested in the study of botany. Prepared in accordance with a resolution passed at the Fifth International Botanical Congress, Cambridge, 1930. London, Pub.for the Bentham Trustees by Bailliere, Tindall and Cox, 1931.

The arrangement of addresses is by countries, alphabetically. The entries under each country are, as far as practicable, in the language of the country, in roman script. At the beginning an index gives page reference to each country. At the end there is a page reference to each personal entry. The entries under each country include (a) Societies with their postal addresses; (b) Institutions wholly or chiefly botanical, their addresses and departments; educational institutions having separate departments dealing with botanical teaching and research; (c) The surname and initials of botanists, both professional and amateur, with information as to their offices and professional qualifications, their postal addresses, and their special botanical interests.

The Grey Squirrel. The introduction and spread of the American grey squirrel in the British Isles, its habits, food and relations with the native fauna of the country. By A. D. Middleton. 107 p. il. London, Sidgwick & Jackson, Ltd., 1931.

"An unprejudiced review of present knowledge concerning the grey squirrel for naturalists, foresters, agriculturists, and all who are interested in the wild life of the country...A lot of the matter incorporated has already been published scientifically but a good deal is here set down for the first time. Much of the data has been derived from correspondence with numerous observers throughout the British Isles." (Preface)

Beasts and Birds as Farm Pests. By James Ritchie, Regius Professor of Natural History in the University of Aberdeen, and Secretary of the Wild Birds Advisory Committee for Scotland. 270 p. il. Edinburgh and London, Oliver and Boyd, 1931.

The chapters in this volume, with some textual alterations and with many additional illustrations, formed a series of articles in the Scottish Journal of Agriculture. The subject is discussed primarily from the farmer's point of view but the naturalist also will find the volume of some interest in regarding the objects of this study from a fresh point of view.

Horns and Hooves. Handling stock in Australia. By Harry G. Lamond. 214 p. il. London, Country Life Ltd., 1931.

The author, who has had thirty years' experience in the handling of stock, states that this is not a test-book but "just a broad outline without delving into tedious detail of handling stock in bulk in Australia." He writes about the ranching of horses, cattle and sheep on farms of many thousands of acres, and portrays "a primitive industry untouched and intouchable by the changing methods in agriculture under other conditions."

Honeycraft in Theory and Practice. By J. A. Lawson. 228 p. il. London, Chapman & Hall, Ltd., 1931.

A book of the modern hive. "Written by a naturalist and successful honey producer, this book deals intimately with the most modern aspects of beekeeping and offers a 'clear Because to a clear Why' in simplifying the problems of honey production and the breeding of bees. The most simple, scientific and practical reference book for beginner or 'old hand'." (Publishers)

Welsh Timber Trees, Native and Introduced. By H. A. Hyde. 107 p. il. Cardiff, Wales, Published by the National Museum of Wales and by the Press Board of the University of Wales, 1931.

The first of a series of projected Museum publications dealing with the botany of Wales.

Beiträge zur Landwirtschaftlichen Betriebswissenschaft. Eine widmungsgabe zum 60. geburtstage des Herrn Geh. Regierungsrats Universitäts-Professors Dr. Friedrich Falke. Herausgegeben von Dr. G. Klauder und Dr. M. Schönberg. 78 p. Dresden und Leipzig, Verlag von Theodor Steinkopff, 1931.

Feldmassiger Gurkenanbau nach neuesten Erfahrungen. Von Diplom-Gartenbauinspektor H. Nicolaisen, Leiter der Versuchswirtschaft fur Gemüzebau der Landwirtschaftskammer fur die Provinz Sachsen, Calbe a. d. Saale. 70 p. il. Braunschweig, Dr. Serger & Hempel, Inhaber Bruno Hempel, 1931.

Die Garten Stauden. Beschreibung der in Mitteleuropa kultivierten und winterharten schmuck- und Blütenstauden mit analytischen bestimmungstabellen. Handbuch für gärtner, staudenzüchter und gartenfreunde. Von H. R. Wehrhahn. 2.v. il. Berlin, Paul Parey, 1931.

Die Praxis der Schnittblumengärtnerei. Lehr- und handbuch für den neuzeitlichen gärtnereibetrieb. Von Curt Reiter, Gartenbauinspektor in Dresden. Funste, neubearbeitete auflage. 488 il. Berlin, Verlagsbuchhandlung Paul Parey, 1931.

Élevage de Rapport des Animaux a Fourrure. Par Gilbert Couturat. 226 p. Paris, Librairie Hachette, 1931. (Bibliothèque "Vie a la Campagne")

Diccionario Technológico de Biología. Dr. J. Fuset Tubia, Catedrático de Biologia en la Facultad de Ciencias de la Universidad de Barcelona. 587 p. Barcelona, Libreria Bosch, 1931.

Oranges, Citrons, Pamplemousses. Leur culture et leur commerce en Floride et en Californie. Par Jacques Faugeras, Ingenieur Agronome. 229 p. il. Paris, Dunod, 1931.

La Sucrerie de Betteraves. Par Ch. Quillard, Expert de l'Etat pour les Dommages de guerre de Sucrerie. Préface de René Bouchon, Ancien Président de l'Association des Chimistes de Sucrerie et de Distillerie. 522 p. il. Paris, Librairie J. -B. Baillière et Fils, 1932. (Encyclopédie de Chimie Industrielle. Directeur: C. Matignon, Professeur au College de France, Membre de l'Institut)

Les Constructions des Exploitations Agricoles en Belgique et au Congo Belge. Par Edmond Leplae, Directeur général au Ministère des Colonies. 192 p. il. Louvain, Librairie Universitaire, 1931.

Danske Landboforeningers Froforsyning, 1906-1931. Udarbejdet af Direktor H. J. Hansen, 191 p. il. Odense, Andelsbogtrykkeriet, 1931.

La Tecnica Adottata per l'avvaloramento Forestale delle Dune Mobili della Tripolitania ed i Risultati Conseguiti. Dott. Giuseppe Leone, Direttore dell'Ufficio Agrario della Tripolitania. 30 p. il. Roma, Ministero delle Colonie, 1931. (Le Colonie Italiane di Diretto Dominio)

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WANTS

The Library of the University of Maine, Orono, desires the following:

Japanese Journal of Botany, v. 1, no. 1,2,3.
Philippine Agricultural Review, v. 2, all nos.; v. 4, Oct. 1911; v. 14, all nos.; v. 16, all nos.

The Agricultural Library, University of Arkansas, Fayetteville, wishes to obtain the following:

Journal of Dairy Science, v. 1-6 inclusive; v. 7, no. 4; v. 8, no. 4; v. 9, no. 1; v. 13, no. 1.

The following publications are desired by the Giannini Foundation of Agricultural Economics Library, University of California, Berkeley:

American Economic Review, v. 6, no. 3; v. 7 through v. 15.
American Farm Economic Association, Proceedings, 1910 through 1916; 1918.
California Fruit News, 1920 through 1929; Jan. 15, Feb. 1, June 28, 1930.
Chase Economic Bulletin, v. 2, no. 1,4; v. 9, no. 1.
Chicago Board of Trade. Annual Reports, 1920,1921,1922,1923.
Cotton production and distribution. U. S. Bureau of the Census. Bulletins 128, 131,134, 135, 137, 140, 147, 153.
Cotton production in the United States, crops of 1914, 1915, 1916, 1917, 1918. U. S. Bureau of the Census.
Federal reserve bulletin, 1914 through 1929. U. S. Federal Reserve Board.
Journal of Farm Economics, v. 6, nos. 1,2,4.
Journal of the American Statistical Association, 1920 through 1926.
Minneapolis Chamber of Commerce. Annual Report, 1928.
Monthly Bulletin of the California state dept. of agriculture, vol. 12, nos. 1-4.
Monthly labor review. U. S. Bureau of labor statistics. vol. 6, nos. 1,3,6; vol. 7, nos. 4-6; vol. 10, no. 3; vol. 11, no. 4.
National Association of Marketing Officials, Proceedings, 1st, 1919.
New Era in Food Distribution, v. 1, no. 1,3,4,5,6,7,8,9.
New York Produce Review and American Creamery, 1920 through v. 68.
Pacific Dairy Review, 1920 through 1929; v. 34, nos. 1-5,9.
Pacific Rural Press, 1919 through Oct. 1930.
Quarterly Journal of Economics, Feb. 1926 (v. 40, no. 2)
Statistical Report of California Dairy Products, 1920/21, 1921/22 (Special publications nos. 21,30 of the California State Department of Agriculture)
Wheat Studies (Food Research Institute of Stanford University), v. 1, no. 2; v. 4, no. 3.

WANTS

Publications desired by the Giannini Foundation of Agricultural Economics Library (cont'd):

Retail prices (U. S. Bureau of Labor Statistics), Bul. 106, 108, 110, 113,115,125,132,136,138,140,156,184,197,228,270,366

Statistical abstract of the United States (U. S. Bureau of Foreign and Domestic Commerce), 1920.

Survey of current business (U. S. Bureau of Foreign and Domestic Commerce), nos. 1,2,5,6,7,8,11-16,18,85,88.

U. S. Bureau of the Census. Biennial census of manufactures, 1923,1925; Thirteenth census of the United States, v. 1-4,6-10; Fourteenth census of the United States, v. 3; 6, pt. 1;7.

U. S. Federal Farm Board. Information release, 2, 4-21, 34-37; Press service, 65.

U. S. Federal Farm Loan Board. 1st annual report, 1917.

Wholesale prices (U. S. Bureau of labor statistics). Bul. 114,149,200.

OFFERS

The Agricultural Library of the University of Tennessee, Knoxville, offers the following publications to anyone who cares to pay the postage on them:

Journal of the Royal Agricultural Society of England, 2d series, v. 16, pt. 1, no. 31; v. 16, pt. 2, no. 32.

Farmers' National Congress of the United States. Official proceedings, 1910 (30th annual session)

Society for the Promotion of Agricultural Science. Proceedings of the 16th annual meeting, 1895. (3 copies)

American Society of Animal Production. Record of proceedings of annual meeting, Nov. 1920-21.

Argentine Republic - Agricultura, Ministerio de. Tuberculose bovine.

Mexico - Fomento, Colonization, e Industria. Ministerio de - Parasitologia Agricola, Comision de. Las plagas de la Agricultura. Entrega novena.

The Library of the University of Maine, Orono, offers the following:

Japanese Journal of Botany, v. 2, no.1; v. 3, no. 1,2,4; v. 4, no. 2,4.

Philippine Agricultural Review, v. 5; v. 6 (except April); v. 7-11; v. 12, no. 1-3; v. 13, no. 1; v. 15, no. 3.

The following books are offered by the Library, U. S. Department of Agriculture:

Dictionary of Practical Apiculture. By John Phin. New York, 1884.

New South Wales - Department of Agriculture. The Swine Fever Outbreak of 1927-1928 in New South Wales.

Scientific Reports from the Government Institute for Infectious Diseases, Tokyo Imperial University, for 1925. v. 4.

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SELECTED LIST OF MIMEOGRAPHED PUBLICATIONS

of the U. S. Department of Agriculture
issued during November-December, 1931, exclusive of current issues of serials.*

Bureau of Agricultural Economics

A brief summary of the livestock situation. 5 p. (Issued by Livestock, meats, and wool division)

Cotton outlook charts with explanations. 1931-32. 22 charts.

Crops; outlook charts for southern states with explanations. 1931-32. 15 charts.

Protection afforded the producer under the United States grain standards act. By Willis B. Combs. 3 p. (Issued by Grain division.)

Statistics relating to the apple industry. 1931. Prepared for the use of outlook conferences. 31 p.

Tax relief, reform, revision, reduction. By Eric Englund. 8 p.
Address before National tax association, Atlanta, Ga., Oct. 15, 1931.

Tentative market classes and grades of green salted kips and calfskins. Rev. 4 p. (Issued by Livestock, meats, and wool division)

Bureau of Agricultural Engineering

A report upon the flow of water through rectangular notches. By D. L. Yarnell. 14 p.
Issued in cooperation with the University of Iowa, Department of hydraulics.

Soil erosion and its prevention. A partial list of references. Compiled by Dorothy Graf. 33 p.

Bureau of Biological Survey

Wild life activities of the Biological Survey, 1931. By Paul G. Redington. 13 p.
Address before the 18th American game conference at the Hotel Pennsylvania, New York City, Dec. 1, 1931.

Bureau of Chemistry and Soils

Reducing dust explosion losses by industrial cooperation. By David J. Price. 7 p. (Issued by Chemical engineering division)
Address before the Food section, National safety council Congress, Chicago, Oct. 14, 1931.

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*For a list of the principal series issued regularly, see v. 4, no. 1-2, p.347.

SELECTED LIST OF MIMEOGRAPHED PUBLICATIONS

Bureau of Chemistry and Soils
(cont'd)

Twenty-four representative soils of the United States. By J. E. Lapham--- with introductory description of soil groups by C. F. Marbut. 24 p. (Issued by Division of soil survey) Prepared to accompany a collection of soil profile samples for use in schools and colleges offering advanced courses in soil science.

Extension Service

High lights of the extension clothing program. Excerpts from annual reports, 1930. Compiled by Florence L. Hall. 45 p. (Issued by Office of cooperative extension work)

Guides for planning adequate diets at low and moderate cost. By Hazel K. Stiebeling. 4 p. (Issued by Office of cooperative extension work)

Report of home demonstration work, 1930. By Madge J. Reese. 60 p. Extension circular 170. (Issued by Office of cooperative extension work)

Grain Futures Administration

A rapid method of calculating profits made or losses sustained in privilege trading on the Chicago board of trade. By Paul Mehl. 57 p.

Bureau of Home Economics

Consider your weight. By Rowena Schmidt Carpenter and Hazel K. Stiebeling. 9 p.

Directions for canning chicken at home. 2 p.

Directions for canning meat at home: beef, veal, mutton, lamb, and pork. 2 p.

Skim milk powder recipes. 6 p.

Bureau of Plant Industry

A preliminary report on the transportation of apples from the Shenandoah-Cumberland region to Great Britain. Investigations conducted during 1929-30. By C. L. Powell and W. W. Aldrich. 12 p. (Issued by Division of horticultural crops and diseases)

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